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PRESIDENT'S LETTER

Coding and Billing and Scribes, Oh My!

Transitioning to ICD-10 Codes: Exploring the Impact on Emergency Medicine

John W. Hafner, Jr., MD, MPH, FACEP

Fall has always been my favorite season, and Halloween is by far my favorite holiday. I dress up every year as a mad scientist, decorate my home as a haunted house (complete with a graveyard and fog machines), and give out a ton of candy to those that come by. I love a good horror flick and my favorite TV show is "The Walking Dead."

I am not sure if there is some connection to my career choice as an emergency physician, but the spooky stuff has always fascinated and entertained me. So as Halloween approaches, it is ironic that we may possibly experience a "zombie apocalypse" of sorts in the House of Medicine. I am referring to the implementation of the dreaded ICD-10 coding system — scarier to most hospital administrators than an Ebola outbreak.

The U.S. Department of Health and Human Services deemed October 1, 2015 as the transition date for the new ICD-10 code sets. The International Classification of Diseases (ICD) was first developed by the World Health Organization for the epidemiologic tracking of illness and injury, and was first implemented in the U.S. in 1946 (ICD-6).

Since that time, the code set has been used by a variety of entities and agencies to both track illness and injury, as well as document conditions treated during medical encounters. The ICD version previously in use (ICD-9) is being transitioned due to not enough codes for new diseases and conditions (14,000 diagnostic codes in ICD-9 compared to 70,000 diagnostic codes in ICD-10). The Centers for Medicare and Medicaid Services (CMS) has mandated that all claims be reported using the ICD-10 codes beginning on October 1, 2015.

There are several ways in which the ICD-10 codes are different than the ICD-9 codes with which most of us are familiar. ICD-10 codes are designed to be more specific to conditions, as well as more anatomically correct (i.e., left/right, proximal/distal). The overall means to which emergency physicians document their history, physical examination, and medical decision making does not have to change. Whatever system individual emergency physicians are using for documentation (EHR, template, dictation) is still valid.

However, the devil is in the details. When there is a lack of detail in physicians' documentation, payors may question the medical necessity of the services being billed. Emergency physicians must now ensure that history supports the codes that are being applied.

Of note, the majority of changes that have occurred with ICD-10 involve the musculoskeletal system and documentation of anatomical position. As an example, for a musculoskeletal injury to a child's right wrist, emergency physicians must more fully document the precise mechanism (i.e., fall); location of where/how an injury occurred (i.e., on the playground); and a more detailed anatomical description of injury (i.e., right, distal, closed, non-displaced radius fracture). This translates to an increase in documentation activities of 15 to 20 percent and a projected permanent increase of 3 to 4 percent of physician time spent on documentation.

How will this affect medicine overall? Implementation of ICD-10 will affect all areas of medicine and every physician. The Rand Science and Technology Policy Institute conducted a feasibility study for ICD-10 implementation, and projected that the cost of conversion is estimated between $425 million to $1.5 billion in one-time costs (training of coders, physicians and code users; software/hardware upgrades) and between $5 and $40 million a year in lost productivity (coders and physicians).

However, there would be added benefits of more accurate payments to hospitals for new procedures ($100 million to $1.2 billion) and fewer rejected claims ($200 million to $2.5 billion). The time it takes for a coder to code an

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inpatient record is projected to increase by 69 percent. Coders will also, most likely, be holding or returning more charts to clinicians in queries for more specific documentation supporting ICD-10 coding.

So how do we combat this new threat to time spent with our patients? As I write this article, in my ED we are boarding 21 patients, 20 patients are at triage, and 2 major trauma resuscitations are underway. As emergency physicians, we are continually asked to do more with less. The institution of ICD-10 and the subsequent documentation needs will again be such a request. Most emergency physicians do not consider themselves experts on documentation, but rather, experts on providing emergency care.

Is there any respite on the horizon? A solution that many emergency departments are turning to is the utilization of medical scribes.

A medical scribe is a professional that documents pertinent history, physical exam findings, laboratory and radiology findings into the medical record in real time. They chart all of the required elements needed for detailed documentation requirements, as well as all of the clinical care delivered in the encounter. The documentation they provide includes time-stamped recheck examinations, detailed procedure notes, and summaries of discussions with consultants. The charting is not only improved for coding and billing but also is beefed up clinically and medicolegally.

There are both professional companies that provide and administer trained scribes, and home-grown versions where the scribes are employed by the physician group or even the individual physician. In my own practice, we have sites that utilize scribe services for the attending physicians and it is mostly a very positive experience. A well-trained scribe will boost my productivity and increase the amount of time I can spend with the patient, and my charts reflect the time and effort that goes into an average ED visit. Many medical scribes are students that are hoping to go into the medical profession, and they get the added bonus of witnessing medicine on the front lines; others are career scribes and often become so proficient they will train newer scribes.

In an age where more detail and documentation will be required to fulfill mandates, scribes seem to be an attractive solution. Several studies have noted that productivity (as measured by patients evaluated per hour) increased by up to 17 percent and billing increased by 10 to 15 percent, providing the rationale that the scribes will pay for themselves. Improvements have also been noted in downcoded charts, door-to-doctor time, and overall patient length of stay.

While the true effects of the ICD-10 implementation remain to be seen, it is clear that ED documentation requirements will not be decreasing. Throughout the House of Medicine, there appears to be potential gains and losses with implementing the new coding system. Within the walls of the ED, the new system will improve the specificity of diagnoses, but at the expense of timely chart completion. One attractive and proven solution is the use of medical scribes, although they may not be feasible in all environments and practices.

Although I may be the biggest fan of Halloween, this season may be the scariest one of all.

— John W. Hafner, Jr., MD, MPH, FACEP
ICEP President

ICD-10 Resources
from Centers for Medicare & Medicaid Services

www.cms.gov/Medicare/Coding/ICD10/Index.html

Includes: Resource Guide | Contact List | Planning Documents | Blog | Email Updates | Quick Start Guide | and more!

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Law Sets New Requirements Related to Billing for Sexual Assault Services

Governor Rauner signed HB 3848 into law in August. Now known as Public Act 99-0454, this new law, effective January 1, 2016, amends the Sexual Assault Survivors Emergency Treatment Act (SASETA) to clarify the prohibition on directly billing any sexual assault survivor; require hospitals to issue survivors a notice regarding billing and a payment authorization voucher; and require health care professionals who are not employed by a hospital or hospital affiliate and who bill separately to submit a billing protocol to the Office of the Illinois Attorney General.

The new requirements will affect emergency departments. The Illinois Hospital Assocation (IHA) has issued a memorandum for all hospitals to help them understand and comply with the new requirements. The full memo is available on ICEP.org, and the primary principles are summarized below.

The Act prohibits the direct billing of a survivor for outpatient hospital emergency services and forensic services. (See full memo for detailed definitions.) The prohibition on billing does not include bills for inpatient services.

Hospitals and other providers shall not (1) charge or submit a bill for any portion of the costs of the services, transportation or medication to the survivor, including any insurance deductible, co-pay, co-insurance, denial of claim by an insurer, spenddown, or any other out-of-pocket expense; (2) communicate with the survivor about payment; (3) refer the bill to collection; (4) provide information to affect the survivor's credit rating; or (5) take any other action adverse to the survivor or her or his family.

Instead, services and medications should be provided to the survivor without charge and the institution providing the care can seek payment via four routes:

1. If the survivor is eligible for Medicaid, submit the bill to the Department of Healthcare and Family Services or the appropriate Medicaid Managed Care Organization and accept the amount paid as payment in full.
2. If the survivor is covered by a policy of health insurance or is a beneficiary under a public or private health coverage program, bill the insurance company or program. Applicable deductible, co-pay or other out-of-pocket insurance-related expenses may be submitted to the Illinois Sexual Assault Emergency Treatment Program for payment at allowable rates under the Public Aid Code. Providers must accept the amounts paid by the insurance company or health coverage program and the Illinois Sexual Assault Treatment Program as full payment.
3. If the survivor is neither eligible for Medicaid nor covered by insurance or a health coverage program, submit the request for reimbursement to the Illinois Sexual Assault Treatment Program at the allowable rates under the Public Aid Code.
4. If a survivor presents a voucher for follow-up health care, lab or pharmacy services, bill the Illinois Sexual Assault Emergency Treatment Program for payment at allowable rates under the Public Aid Code. If the survivor has insurance, the provider must first bill insurance as primary, and then send a bill for any remaining balance, along with a copy of the voucher, to the Illinois Sexual Assault Emergency Treatment Program for payment at allowable rates under the Public Aid Code. Providers must accept the amounts paid by the insurance company and the Illinois Sexual Assault Treatment Program as full payment.

Requirements for Treatment Hospitals

The law sets two requirements for treatment hospitals. These requirements are not applicable to transfer hospitals.

1. **Provide written notice about billing.** By March 1, 2016, (60 days after the Act's effective date), every hospital providing treatment services to sexual assault survivors in accordance with a Plan approved by the Illinois Department of Public Health shall provide written notice to sexual assault survivors that includes certain information related to billing.
2. **Provide vouchers.** Effective January 1, 2016, every hospital providing treatment to a survivor is required to issue a voucher to any survivor eligible to receive one; give the voucher to the survivor; place a copy in the survivor's medical record; and provide an additional copy to the survivor after discharge, upon request. Eligible survivors are those who are not covered by Medicaid. For eligible survivors with a voucher, the Illinois Sexual Assault Treatment Program will cover follow-up care and medications related to the sexual assault that are provided within 90 days of the initial emergency department visit.

Health Care Professional Billing Protocol

The Act sets different requirements for health care professionals (e.g., physicians, APNs and others) who are not employed by the hospital or a hospital affiliate and bill separately from the hospital for hospital emergency services or forensic services. These professionals must develop a billing protocol that ensures that no survivor of sexual assault will be sent a bill for these services, and submit the billing protocol to the Office of the Attorney General for approval. The deadline to comply is March 1, 2016.

Penalties for Noncompliance

The Office of the Attorney General may assess a penalty of $500 per violation for willful violations or a pattern or practice involving the following actions:

- Directly billing a survivor for hospital emergency services or forensic services;
- Communicating with or harassing the survivor for payment;
- Contacting or distributing information to affect the survivor's credit rating;
- Taking an action adverse to the survivor or his or her family on account of providing services to the survivor; or
- Hospital's failure to provide the written notice to survivors required by the Act

The OAG may assess a penalty of $500 for each day that a survivor's bill is with a collection agency.

Additionally, the OAG may assess a penalty of $100 per day on a health care professional who fails to submit a billing protocol to the OAG for approval. The penalty may be assessed until the health care professional complies with the requirement.

The full IHA memo also includes a sample written notice to survivors regarding billing, instructions for generating the required online voucher and an elective hospital billing protocol template. Download the complete memo at ICEP.org.

Statewide Research Showcase Abstract Round-Up with ICEP Research Committee

Each issue of EPIC will feature the Statewide Research Showcase Abstract Round-Up. Several abstracts that were selected for the Statewide Research Showcase at the 2015 Spring Symposium will be printed, with brief commentary provided by a member of the Research Committee. This month's commentary is provided by Connie Swickhamer, DO, FACEP.

Mitochondrial Dysfunction Mediated Myocardial Stunning Following Asystolic Cardiac Arrest

Willard W. Sharp MD, Ph.D[1], Lin Piao, Ph.D[1], Yong Hu Fang, MD[1], David G. Beiser, MD[1], James Liao, MD[1], Stephen L. Archer, MD[2]; University of Chicago, Chicago, IL, Queens University Kingston, Ontario, Canada

Background: Despite improvements in cardiovascular pulmonary resuscitation (CPR) and post-cardiac arrest care, sudden unexpected cardiac arrest is a leading cause of death worldwide. The pathophysiological mechanisms determining post-cardiac arrest resuscitation success are not understood.

Objective: To determine the nature and severity of myocardial injury and dysfunction following asystolic cardiac arrest (CA). We also sought to determine the effects of Mdivi-1 (an inhibitor of mitochondrial fission) on post CA outcomes.

Methods and Results: Asystolic cardiac arrest (CA) was induced in anesthetized, ventilated mice by IV injection of KCL. CPR begun at 4, 8, 12, and 16 minutes post-cardiac arrest had corresponding rates of successful return of spontaneous circulation of 100%, 93%, 71%, and 44% and 2-hour survival of 100%, 67%, 50%, and 11%. Transthoracic echocardiography 15 min post-resuscitation demonstrated percent fractional shortening of 35±3% (Sham), 33±2% (4 minCA), 24±3% (8minCA), 16±1% (12minCA). Myocardial dysfunction persisted for 2 hours post-resuscitation, but slowly recovered to baseline by 72 hours in surviving animals. Despite severe myocardial dysfunction, no evidence of myocardial necrosis, inflammation, apoptosis, or mitochondrial permeability transition pore (MPTP) opening were noted following resuscitation. Increased mitochondrial superoxide post CA assessed by MitoSOX fluorescence was observed in post arrest tissue and in isolated mitochondria. Mitochondria isolated from 12 min CA hearts demonstrated decreased ADP and FCCP stimulated respiration. Mdivi-1, a mitochondrial inhibitor of division improved survival and neurological scores in mice following an 8 min cardiac arrest compared to controls.

Conclusions/Impact: Severe, time dependent myocardial stunning (contractile dysfunction in the absence of irreversible injury) was observed following asystolic cardiac arrest. This myocardial dysfunction was associated with mitochondrial injury and improved by an inhibitor of mitochondrial fission. Strategies targeting ischemia/reperfusion-induced changes in mitochondrial dynamics hold promise for improving outcomes following asystolic cardiac arrest.

RESEARCH COMMITTEE COMMENTARY: Cardiac arrest is still a leading cause of death despite research, CPR/AED training for the public, and ACLS training for health care providers. Per the AHA, more than 420,000 cardiac arrests occur out-of-hospital each year. This study is looking at time of CPR initiated after cardiac arrest (CA) with the successful return of spontaneous circulation, effect on the mitochondrial shortening measured with transthoracic echocardiography and the presence of the mitochondrial superoxide (MitoSOX).

It is not surprising that the group that had CPR started in 4 minutes had 100% return of spontaneous circulation, 100% 2 hour survival, and had the least amount of mitochondrial dysfunction. Interestingly, despite mitochondrial dysfunction, there was not evidence of myocardial necrosis, inflammation, or apoptosis after the mice were resuscitated. The study was able to demonstrate that in the group when CPR was delayed for 8 minutes, if Mdivi-1 (a mitochondrial inhibitor of division) was given, the survival and neurological scores were improved compared to control group.

Future work in this area at the cellular level may help lead to increased survival and improved neurological outcomes in patients who may have delay in the initiation of CPR after cardiac arrest and will become part of our practice.

— Connie Swickhamer, DO, FACEP

Trends in Demographics and Outcome of Patients Presenting with Traumatic Brain Injury

Rachel Kadar, MD, Ellen Omi, MD, Yalaunda Thomas, MD, Erik B. Kulstad, MD, MS, FACEP; Advocate Christ Medical Center, Department of Emergency Medicine, Oak Lawn, IL

Background: Traumatic brain injury (TBI) is a major cause of death and disability, with over 290k hospital admissions, 51k deaths, and 80k permanent neurologic disabilities occurring annually in the US alone. With substantial data on TBI coming from large public datasets that have recently been shown to have limitations in data reliability, analysis of trends and outcomes in reliable databases would be helpful to better understand areas in need of further study.

Objective: We examined a large, high-quality trauma registry to determine changes in demographics and outcome of patients presenting with TBI over a 9 year timeframe.

Design/Methods: We analyzed data from the Illinois Department of Public Health (IDPH) Trauma Registry (a large database maintained by professionals with experience in medical chart abstraction and data entry), retrieving data on patients treated for TBI at our large, tertiary care hospital during the years 2004 to 2012, inclusive. Basic demographics, such as age and gender, and clinical outcome, were analyzed and compared over the years with logistic regression models.

Results: A total of 3039 patients with TBI were treated over the study period, with a mean age of 43 years (SD 24) and a median age of 41 (IQR 23 to 60). Age increased steadily through-

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Don't Miss 2015 EM4LIFE LLSA Article Review: Nov. 17

Have you completed your 2015 LLSA article review requirement? ICEP's EM-4LIFE course can help!

The 2015 LLSA articles will be covered on Tuesday, November 17 at the ICEP Conference Center in Downers Grove.

EM4LIFE review courses help you meet your EMCC requirements by getting your LLSA done in just one day — including the exam! All sessions include the opportunity to take the LLSA exam online in a group setting.

The EM4LIFE program is presented by noted author Deborah E. Weber, MD, FACEP and includes Dr. Weber's popular EM4LIFE PEARLS resource. EM4LIFE PEARLS reviews the key points of each LLSA article in a concise, easy-to-read bullet-point format.

Registration is open online now at ICEP.org.

The cost of the course is $275 for ICEP/ACEP members and $299 for non-member physicians. (Cost includes the EM4LIFE PEARLS. You will also receive an extensive PowerPoint handout at the course.)

If you don't have time to attend the course, you can purchase the EM4LIFE PEARLS product for self-study for $80. Visit ICEP.org to place your order.

Save the date for 2016 EM4LIFE courses! A course reviewing the 2015 articles will also be presented on Tuesday, May 24, and a course reviewing the 2016 articles will be presented on Tuesday, November 15. Registration for the 2016 courses will open in January.

ACEP Seeks Comment on Draft Clinical Policy: Nov. 29 Deadline

The draft clinical policy on children younger than two years with fever is in the review stage of ACEP clinical policy development. Comments on the draft are being sought by the ACEP Clinical Policies Committee. All comments will be carefully reviewed by the Committee, and used to further refine and enhance the draft when evidence supports the changes. Individual reviewer names will not be used in the final document. Comments do not imply endorsement of the document and will be stated as such in the final document. The comment period is open for 60 days (October 1-November 29, 2015). For questions, please contact Rhonda Whitson, RHIA, at rwhitson@acep.org. Visit ACEP.org to submit comments online.

New Illinois Fellows to Be Honored at ACEP15

Congratulations to the ICEP members who will be recognized as new Fellows of the American College of Emergency Physicians at the convocation ceremony during ACEP15 in Boston. Fellows also will be recognized during the Opening Session and will have reserved seating.

2014 applicants who were not recognized at ACEP14:

- Harry C. Karydes, DO, FACEP
  Arlington Heights, IL
- S. Margaret Paik, MD, FACEP
  Chicago, IL

2015 applicants:

- Sunil Arora, MD
  Chicago, IL
- Debra D. Baines, MD
  Olympia Fields, IL
- Veerasikku Bommiasamy, MD
  Streator, IL
- Casey S. Collier, MD
  Chicago, IL
- Bhakti Hansoti, MD
  Baltimore, MD
- Joshua J. Hillen, MD
  Chicago, IL
- Christopher Hogrefe, MD
  Evanston, IL
- Juan Ambrose Insua, MD
  Chicago, IL
- Nathan M. Jones, MD
  Springfield, IL
- Sara Krzyzaniak, MD
  Peoria, IL
- Allison Lazar, MD
  Glencoe, IL
- Shannon Lovett, MD
  Chicago, IL
- Jenny Lu, MD, MS
  Chicago, IL
- Joshua J. Miksanek, MD
  Herrin, IL
- Amanda C. Miller, DO
  Marengo, IL
- Sergio Eli Morales, MD
  Dunlap, IL
- Jared D. Novack, MD
  Highland Park, IL
- Matthew Pirotte, MD
  Chicago, IL
- Neal D. Rushforth, MD
  Bloomington, IL
- Jeffery Scott Shafer, MD
  O Fallon, IL
- Stephen F. Spontak, MD
  Homer Glen, IL
- Alison S. Tothy, MD
  Chicago, IL
- Leo Treysman, MD
  Libertyville, IL
- Robert R. Turelli, Jr, MD
  Chicago, IL
- Michael A. Ward, MD
  Chicago, IL
- Margaret K. Williamson, MD
  Chicago, IL

Spaces Filling Fast for ICEP's Hands-On Ultrasound for EM Workshop on Dec. 2

ICEP's Ultrasound for Emergency Medicine course will be held Wednesday, December 2 at the ICEP Conference Center in Downers Grove. Registration spaces are still available for both the Basic and Fast Track course options.

ICEP's hands-on workshop for physicians demonstrates the use of bedside ultrasound to diagnose acute life-threatening conditions, guide invasive procedures, treat emergency medical conditions, and improve the care of emergency department patients.

Robert P. Rifenburg, DO, RDMS, FACEP serves as the program's course director.

The program uses live models to cover pelvic, gallbladder, AAA and FAST Exam techniques. State-of-the-art trainers let you practice central line and peripheral IV placement.

ICEP's interactive program offers two options to choose based on your experience:

The Basic course is designed for physicians with limited or minimal experience, seeking both didactic lectures and hands-on practice on ultrasound techniques. The cost is $450 for ICEP/ACEP members and $499 for non-member physicians.

The Fast Track course is designed for physicians with prior ultrasound experience seeking hands-on practice only. The Fast Track Course does not include didactic lectures but puts participants hands-on at skill stations the entire course to maximize practice. The cost is $300 for ICEP/ACEP members and $350 for non-member physicians.

The full course brochure, agenda and registration is available online at ICEP.org. Due to the interactive nature of the program, space is limited. Register early to reserve your space.

ICEP's Ultrasound for Emergency Medicine courses are approved for a maximum of 5.5 *AMA PRA Category 1 Credits*™.

ICEP Seeks Research for 2016 Statewide Research Showcase

ICEP is seeking submissions for the annual Statewide Research Showcase held at the Spring Symposium. This is ICEP's only research presentation opportunity, so don't miss your chance to submit and present at a regional meeting!

The Statewide Research Showcase is open to both residents and attending physicians to present oral and poster presentations of emergency medicine research.

ICEP is calling for submissions of abstracts from those interested in presenting their research at the 2016 Symposium on Thursday, May 5 at Northwestern Memorial Hospital.

The deadline to submit abstracts is Friday, March 4. The Research Committee will make selections and notify applicants at the end of March. Traditionally, approximately 5 abstracts are selected for oral presentation and 10 abstracts for poster presentation.

Abstract guidelines and the scoring system will remain the same as what was implemented in 2015, with one exception: The maximum word count for the abstract has been increased to 350 words (from 300).

All submitted abstracts are published in the Statewide Research Showcase eBook that is distributed with other meeting materials at the Spring Symposium.

All abstracts must be submitted electronically to Lora Finucane at loraf@icep.org with the completed Abstract Submission Form. Abstracts must conform to the guidelines listed in the form in order to be considered. A blinded copy of the abstract must be included for judging purposes.

Download the form at ICEP.org/research.

SAVE THE DATE!
Spring Symposium
Thursday, May 5, 2016
Northwestern Memorial Hospital, Chicago

EMF Aims to 'Pave the Way' with Donation Campaign for New Plaza

You've built your career in emergency medicine—now is your chance to build the future of the specialty. In 2016, ACEP is moving to a dynamic new headquarters in Irving, Texas. To ensure that emergency medicine research always has a home in this new building, you can donate to the EMF Plaza, a beautiful collection of personalized brick pavers in the courtyard.

By donating, you will have an enduring symbol of your commitment to emergency medicine and will literally lay the groundwork for future research projects that bring about the highest quality of care for your patients. Find out more at www.emfoundation.org/brick. More than 100 bricks have already been donated!

Statewide Research Showcase Abstract Round-Up with ICEP Research Committee

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out the study period, from 32 years in the earliest to almost 49 in the latest. On average, 25% of the patients were female but the percentage of female TBI patients increased throughout the study period, from 16.4% initially, to 27.5% over the last 4 years. Overall mortality was greater for males than females (22.1% versus 17.3%, OR 1.36, 95% CI 1.10 to 1.68). Patient mortality decreased over the entire period (OR 0.88, 95% CI 0.85 to 0.91) overall, with a greater decrease seen in females (OR 0.84, 95% CI 0.78 to 0.90) than in males (OR 0.90, 95% CI 0.86 to 0.94).

Conclusion: Although the age of patients presenting with TBI is increasing substantially, these data suggest that overall mortality appears to be decreasing, and this decrease appears greater in females than in males.

Impact: Efforts to improve outcomes from TBI appear to be having a positive effect, although the relative contributions from public health measures, pre-hospital care, resuscitation science, intensive care, and rehabilitation, are less clear. The influence of gender, especially in light of recently negative studies of progesterone administered to TBI patients, likewise requires additional analysis.

RESEARCH COMMITTEE COMMENTARY: Since traumatic brain injury (TBI) is a leading cause of death and disability in the United States with a high health care costs associated with it, it is important to know who is most affected and if the care being provided is affecting outcomes in mortality.

This study showed that over a nine-year timeframe, there was an increased percentage of female TBI patients, and that the median age increased. The review of the database showed that mortality improved and that the group which was most affected by that was women.

It is encouraging that the mortality has improved in TBI patients but continued high quality care is still necessary and should continue to be an area of focus in trauma care.
— Connie Swickhamer, DO, FACEP

A Comparison of Emergency Department Throughput in Geographical vs. Rotational Patient Assignment Models

Lindsay Purnell, MD, Jennifer Cash, MD, Erik Kulstad, MD, MS, FACEP, Karis Tekwani, MD, FACEP, Chintan Mistry, MD, FACEP; Advocate Christ Medical Center, Department of Emergency Medicine, Oak Lawn, IL

Background: Various methods exist to assign patients to providers in the emergency department (ED), with uncertainty remaining as to which methods may best optimize patient flow. Two of these methods include geographical based (where patients within a specific geographical space in the ED are assigned to specific providers) and rotational based (where patients are assigned to providers based on arrival time, irrespective of geographical placement in the ED).

Objective: We sought to compare time to treatment measurements in a geographical based patient assignment model to a rotational patient assignment model in a large metropolitan hospital, hypothesizing reduced times to each metric in the rotational patient assignment model.

Design/Methods: We reviewed data from visits of patients aged 19 years and older seen at our hospital during 2 separate 4 week periods with two different patient assignment models. From May 1, 2012 to May 30, 2012 patients were assigned to physicians via a geographical/acuity model. This was compared with patients seen from June 16, 2012 through July15, 2012, who were assigned to physicians via a rotational model. We compared length of stay (LOS), time to first provider (TTFP), time to bed (TTB), time to nurse (TTN) and time to disposition (TTD) utilizing nonparametric statistical analysis with correction for multiple statistical tests.

Results: A total of 11,537 visits were analyzed. TTFP for the geographical model was 32 minutes compared with 38 minutes for the rotational model ($p<0.001$). TTD was also shorter in the geographical based model at 182 minutes compared to 193 minutes ($p<0.001$).Changes in overall LOS, TTN, and TTB were not statistically significant.

Conclusion: A rotational patient assignment model did not improve emergency department timing metrics when compared to a geographical based assignment model in our hospital.

Impact: A geographical patient assignment model may optimize ED throughput compared with a rotational model.

RESEARCH COMMITTEE COMMENTARY
Emergency department throughput has long been an issue for the physicians and staff members who work there. It now has the attention of the administration of hospitals since it is now a Clinical Quality Measure for Centers of Medicare and Medicaid.

ED-1 NQF 0495 measures median time from ED arrival to ED departure for admitted patients and ED-2 NQF 0497 measures median time from admit decision to time of departure from ED for admitted patients.

There have been different models proposed to improve patient throughput, with geographical location-based and rotational-based being two of these. This study showed that the geographical model for assigning patients had improved TTFP (time to first provider) and TTD (time to disposition) and were both statistically significant.

It is not surprising that physicians who were in closer proximity to their patients were more likely to see them quickly, initiate the work-up and have a quicker disposition.
— Connie Swickhamer, DO, FACEP

Missed the 2015 Statewide Research Showcase at Spring Symposium?

Download the eBook of all abstracts at

ICEP.org/research

EMERGENCY MEDICINE
Chicago, Illinois

PROFILE

The Department of Emergency Medicine at Rush University Medical Center seeks an emergency medicine residency trained, Board Certified / Eligible physician. This recruitment is part of a key strategic growth initiative for the medical center. Rush opened a new hospital in January 2012, which is home to the new, state-of-the-art Emergency Department with an annual volume of 70,000. Ideal candidates will join the team with an academic appointment and the opportunity for professional growth and nonclinical time. The Department of Emergency Medicine is committed to building upon the excellent patient centric care with a strong focus on the patient experience.

The Department has made recent updates to the compensation structure and currently provides a competitive market base salary with an incentive bonus opportunity up to 30% of the base salary. Shifts are 9 hours in length with the replacement physician coming at hour 8 to allow for 1 hour of overlap to decrease sign-outs. There are currently 72 hours of physician coverage per day, and we are actively recruiting for 81 hours of physician coverage, 27 hours of scribe coverage per day and an additional 16 hours of NP/PA coverage per day which allows average physician patient per hour of 2.05. The Department is also actively restructuring the number of shifts per physician per year to maintain competitive with local Emergency Medicine departments.

As an academic department, the Rush Department of Emergency Medicine trains rotating residents from multiple specialties, medical students and physician assistants. It is academically affiliated with the Stroger Hospital of Cook County (Cook County Hospital) Emergency Medicine Residency through an overarching master affiliation agreement between both institutions and sponsors the joint Emergency Medicine Ultrasound Fellowship and Simulation Laboratory Fellowship. The ED is supported by social workers, a chaplain and a child life specialist in addition to consultants representing all specialties in medicine and surgery who take 24 hour call for the ED. The attending staff are Rush employed physicians and receive full benefits at group rates, CME reimbursement, malpractice insurance and a robust retirement package.

HOSPITAL ENVIRONMENT

Rush University Medical Center is an academic medical center that encompasses a 664-bed hospital serving adults and children. In January 2012, Rush opened a new 376-bed hospital building, known as the Tower, which is part of the Medical Center's major renovation of its campus. Rush University is home to one of the first medical colleges in the Midwest and one of the nation's top-ranked nursing colleges, as well as graduate programs in allied health, health systems management and biomedical research. The Medical Center also offers more than 70 highly selective residency and fellowship programs in medical and surgical specialties and subspecialties.

Rush is consistently ranked as one of the nation's top hospitals by *U.S. News & World Report*. Rush is ranked in 7 of 16

For more information, please contact:

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312-563-6074

RUSH UNIVERSITY MEDICAL CENTER

Rush is an Equal Opportunity Employer

Still Time to Join Colleagues at ACEP15 in Boston on October 26-29: Register Today

ACEP15 in Boston is just two weeks away. There's still time to join your colleagues from across the country at the world's largest emergency medicine conference. ACEP15 is October 26-29 at the Westin Waterfront and Boston Convention & Exhibit Center. Register online today at ACEP.org.

Whether you're a seasoned veteran or a brand new attendee, ACEP15 will be an experience like none other. You will find new ways to learn, new opportunities to network, and new reasons to build a solid foundation for our specialty. But there is one thing you can count on being the same — the best emergency medicine education in the world.

Education
The ACEP15 curriculum consists of clinical, as well as essential management and risk management tools to aid in your day-to-day practice. With educational courses, skills labs and workshops, ACEP15 is the best source for your emergency medicine education needs!

Networking
Thousands of emergency medicine professionals from around the globe gather annually to attend ACEP's flagship event — the premier event in the specialty. ACEP15 is an immersive experience that goes beyond what typical medical conferences offer. It is the single most comprehensive consortium that brings together education, networking, policy development, and new technology to one convenient location. Moreover, ACEP15 is the place to gain the knowledge and tools that you can immediately put to practice.

Don't miss the Exhibit Hall with hundreds of vendors onsite with the latest technologies, products and services.

Fun
Emergency Consultants presents the ACEP15 Kickoff Party! This year, ACEP is taking over two exciting venues in the heart of Boston, right behind historic Fenway Park. At the House of Blues, ACEP15 registrants are invited to dance the night away to a live band. Just up the street, every door of Jillian's/Lucky Strike is open to ACEP15 registrants to enjoy bowling, foosball, pool tables, a DJ, and more. The Kickoff Party is Monday, October 26 from 7:00 PM to midnight and free for all registered attendees.

Close out your incredible week in Boston with the ACEP15 Closing Celebration presented by EmCare at the spectacular New England Aquarium. There's no better finale to a great week of learning and fun than celebrating with new friends and colleagues among the vast array of marine life at the New England Aquarium. The Closing Celebration is Wednesday, October 28 from 7:00 to 11:00 PM and free for all registrants.

WHY CHOOSE CARLE?

Emergency Medicine Opportunities

Carle Physician Group in Urbana, Illinois, is seeking additional **BE/BC Emergency Medicine** physicians to join our quality-oriented team**.** Our **400-member physician group** is part of a not-for-profit integrated network of healthcare services that also includes **Carle Foundation Hospital, a 393-bed Level I Trauma Center for 22 counties in Central Illinois.**

- Stable 23-member department along with 10 PAs seeing 70,000 patients per year
- 24-hour in-house coverage provided by Anesthesiology, 21-member Hospitalist Department, OB-GYN and Trauma Surgery
- 14,000 square foot expansion completed in 2014 added 17 additional acute beds, ultrasound room in dedicated ED Radiology suite with state-of-the art imaging equipment
- Teaching opportunities through **University of Illinois College of Medicine - Urbana-Champaign**
- Accredited Stroke and Chest Pain Center
- Air medical transport stationed at Carle around the clock with a Carle team on-site ready for departure in minutes
- Carle's Emergency Department has routinely scored in the 90th percentile in Press Ganey customer satisfaction among its peers and received the prestigious 2012 Emergency Medicine Excellence Award by HealthGrades
- Home to the Big Ten University of Illinois, Urbana-Champaign is a diverse community of 195,000 offering cultural events, sports and entertainment typically found in larger cities and is centrally located two hours from Chicago and Indianapolis and three hours from St. Louis
- Excellent educational, healthcare and housing options provide an ideal setting For personal and professional satisfaction for the single person or family
- **Vacation, CME and holiday time with equitable distribution of holiday/weekend shifts; superior compensation and benefit package, paid malpractice insurance with 100% tail coverage, and a sign on and retention bonus!**

www.carleconnect.com

For more information, please call Sarah Spillman-Smith at (800)436-3095, extension 4179 or E-mail sarah.spillman@carle.com

Carle

Illinois EPIC

Illinois College of Emergency Physicians
3000 Woodcreek Drive, Suite 200
Downers Grove, IL 60515

ICEP Calendar *of* Events 2015-2016

October 19, 2015
Finance Committee Meeting
9:30 AM - 10:30 AM
ICEP Board Room
Downers Grove

October 19, 2015
Board of Directors Meeting
10:30 AM - 2:30 PM
ICEP Board Room
Downers Grove

October 30, 2015
Patient and Physician Advocacy Committee Conference Call
9:30 AM - 10:30 AM

November 17, 2015
EM4LIFE 2015 LLSA Article Review Course
ICEP Conference Center
Downers Grove

November 26-27, 2015
ICEP Office Closed
Thanksgiving Holiday

December 2, 2015
Ultrasound for Emergency Medicine Workshop
ICEP Conference Center
Downers Grove

December 3, 2015
EMS Committee Meeting
11:00 AM - 1:00 PM
ICEP Board Room
Downers Grove

December 3, 2015
EMS Forum
1:00 PM - 3:00 PM
ICEP Conference Center
Downers Grove

December 7, 2015
Education Committee Meeting
11:00 AM - 1:00 PM
ICEP Board Room
Downers Grove

December 9, 2015
ITLS Illinois Advisory Committee Meeting
10:00 AM - 12:00 PM
ICEP Training Room West
Downers Grove

December 14, 2015
Finance Committee Meeting
9:30 AM - 10:30 AM
ICEP Board Room
Downers Grove

December 14, 2015
Board of Directors Meeting
10:30 AM - 2:30 PM
ICEP Board Room
Downers Grove

December 24-25, 2015
ICEP Office Closed
Christmas Holiday

January 1, 2016
ICEP Office Closed
New Year's Day Holiday

February 11, 2016
Emergency Medicine Update
JUMP Trading Simulation and Education Center
Peoria

March 17-18, 2016
Oral Board Review Courses
Chicago O'Hare Marriott
Chicago

Register for all courses online at ICEP.org!