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Annals of Emergency Medicine

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## NEWS AND PERSPECTIVE

### 18A Balance Billing: How Did We Get Here and Where Are We Headed?

M Kelly

## 21A GLOBAL RESEARCH HIGHLIGHTS

## RESEARCH METHODS

- FREE**  **555 Research Pioneers in Emergency Medicine—Reflections on Their Paths to Success and Advice to Aspiring Researchers: A Qualitative Study** (Original Research)  
WC Coates, LM Yarris, SO Clarke, D Runde, J Kurth, E Fowlkes, J Jordan  
*What question this study addressed:* What career insights from successful emergency medicine investigators can aid the next tranche of knowledge creators? *What this study adds to our knowledge:* Structured interviews of 10 senior emergency medicine investigators elicited consistent themes of training, networking, mentoring, and collaboration to achieve success.
-  **565 The Results of Randomized Controlled Trials in Emergency Medicine Are Frequently Fragile** (Original Research)  
J Brown, A Lane, C Cooper, M Vassar  
*What question this study addressed:* This study used the fragility index to explore the stability of the conclusions of 180 research articles in emergency medicine. *What this study adds to our knowledge:* The mean number of subjects was 140 and the fragility index was 4. In other words, not much has to change to alter these study's conclusions. Fragility was not strongly correlated with either sample size or *P* value.

## CARDIOLOGY

- CME**  **578 Derivation and Validation of the SWAP Score for Very Early Prediction of Neurologic Outcome in Patients With Out-of-Hospital Cardiac Arrest** (Original Research)  
H-M Shih, Y-C Chen, C-Y Chen, F-W Huang, S-S Chang, S-H Yu, S-Y Wu, W-K Chen  
*What question this study addressed:* Whether the SWAP assessment tool, developed with 852 emergency department (ED) cardiac arrest patients and validated with another 859, could identify patients unlikely to benefit from further resuscitation. *What this study adds to our knowledge:* Patients with all 4 elements of the score—initial nonshockable rhythm, unwitnessed arrest, older than 60 years, and initial ED serum pH less than or equal to 7.00—had 0 point-estimate probability of a good neurologic outcome in the validation set.

**SRS** designates Systematic Review Snapshot articles.

**FREE** designates free full-text access for nonsubscribers at [www.annemergmed.com](http://www.annemergmed.com).

**CME** designates that Continuing Medical Education exam for this article is available at <http://www.acep.org/ACEPeCME/>.

 indicates a podcast is available at [www.annemergmed.com](http://www.annemergmed.com).

**JC** designates that *Annals of Emergency Medicine* Journal Club questions and answers are available.

 designates content is only available at [www.annemergmed.com](http://www.annemergmed.com).

 indicates related video files are available at [www.annemergmed.com](http://www.annemergmed.com).



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- 📄 **589 Effect of Barthel Index on the Risk of Thirty-Day Mortality in Patients With Acute Heart Failure Attending the Emergency Department: A Cohort Study of Nine Thousand Ninety-Eight Patients From the Epidemiology of Acute Heart Failure in Emergency Departments Registry** (Original Research)

X Rossello, Ò Miró, P Llorens, J Jacob, P Herrero-Puente, V Gil, MA Rizzi, MJ Pérez-Durá, FR Espiga, R Romero, JA Sevillano, MT Vidán, H Bueno, SJ Pocock, FJ Martín-Sánchez, on behalf of the ICA-SEMES Research Group

*What question this study addressed:* Whether the Barthel Index score at emergency department (ED) presentation or the change in score from baseline to ED presentation is associated with short-term prognosis. *What this study adds to our knowledge:* In this retrospective database study of 9,098 patients, the Barthel Index score in the ED was strongly associated with 30-day mortality. The change from reported baseline score did not add value.

- 599 Hands-Only Cardiopulmonary Resuscitation Education: A Comparison of On-Screen With Compression Feedback, Classroom, and Video Education** (Original Research)

DG Heard, KH Andresen, KM Guthmiller, R Lucas, KJ Heard, AL Blewer, BS Abella, LM Gent, C Sasson

*What question this study addressed:* What is the comparative effectiveness of 3 different educational modalities for teaching hands-only cardiopulmonary resuscitation to laypeople? *What this study adds to our knowledge:* Approximately 50% of the 771 persons randomized completed the 3-month skill retention test. Results were similar for all groups. Individuals trained in the classroom or with the 4-minute video and feedback manikin kiosk practice session performed similarly and somewhat better than video-only participants during initial testing.

- 📄 **610 Transesophageal Echocardiography During Cardiopulmonary Resuscitation Is Associated With Shorter Compression Pauses Compared With Transthoracic Echocardiography** (Brief Research Report)

J Fair III, MP Mallin, A Adler, P Ockerse, J Steenblik, J Tonna, ST Youngquist

*What question this study addressed:* This retrospective case series of 25 patients addressed whether transesophageal echocardiography is associated with briefer pulse check interruptions of chest compressions compared with transthoracic echocardiography or no bedside ultrasonography during cardiac arrest resuscitation. *What this study adds to our knowledge:* Transesophageal echocardiography is associated with briefer pauses during pulse checks than transthoracic echocardiography or no echocardiography.

- 📄 **617 Among Low-Risk Patients, Does Functional Testing Decrease Referrals for Invasive Coronary Angiography Compared With Coronary Computed Tomographic Angiography?**

(Systematic Review Snapshot)

B Long, MD April

- 📄 **620 Do Mechanical Chest Compression Devices Compared With High-Quality Manual Chest Compressions Improve Neurologically Intact Survival of Patients Who Experience Cardiac Arrest?** (Systematic Review Snapshot)

B Long, MD April

ECG OF THE MONTH

- 624 ST Elevation in a Patient With Abdominal Pain**

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## 627 New T Wave Inversions Post Synchronized Cardioversion in a Patient With a Ventricular Pacemaker

*J Haggerty, W Goldenberg*

### GENERAL MEDICINE

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#### 631 Online Ratings of the Patient Experience: Emergency Departments Versus Urgent Care Centers (Original Research)

*AK Agarwal, K Mahoney, AL Lanza, EV Klingler, DA Asch, N Fausti, C Tufts, L Ungar, RM Merchant*

*What question this study addressed:* What can we learn through analyzing and comparing Yelp ratings and reviews of emergency departments (EDs) and urgent care centers? *What this study adds to our knowledge:* Both EDs and urgent care centers receive online reviews. Urgent care centers rate better than EDs. Themes of positive reviews for both include comfort, overall experience, pediatric care, professionalism, cleanliness, and staff interactions.

#### 639 The Diversity Snowball Effect: The Quest to Increase Diversity in Emergency Medicine: A Case Study of Highland's Emergency Medicine Residency Program (Concepts)

*JF Garrick, B Perez, TC Anaebere, P Craine, C Lyons, T Lee*

*What question this study addressed:* This article describes one residency's efforts to increase the proportion of residents who self-identify as underrepresented minority. *What this study adds to our knowledge:* By development of new elements to the residency recruitment process (eg, no United States Medical Licensing Examination filter for the Electronic Residency Application Service, increased weight to the interviewers' "gestalt score," development of attending and resident buy-in, development of a dedicated diversity committee and applicant week), the proportion of residents who were underrepresented minorities increased from 12% (preinitiative) to 27% (postinitiative).

#### 648 Do Colloids Improve Mortality Compared With Crystalloids for Resuscitation of Critical Patients? (Systematic Review Snapshot)

*DA Nikolla, MT McCarthy, JN Carlson*

#### e75 Can Acute Uncomplicated Diverticulitis Be Safely Treated Without Antibiotics?

(Systematic Review Snapshot)

*M Gottlieb, N Shah, B Yu*

### TRAUMA

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#### 650 Older Blood Is Associated With Increased Mortality and Adverse Events in Massively Transfused Trauma Patients: Secondary Analysis of the PROPPR Trial (Original Research)

*AR Jones, RP Patel, MB Marques, JP Donnelly, RL Griffin, J-F Pittet, JD Kerby, SW Stephens, SM DeSantis, JR Hess, HE Wang, on behalf of the PROPPR Study Group*

*What question this study addressed:* The study examined the association of stored blood age and volume of transfusion with outcomes in severely injured patients. *What this study adds to our knowledge:* This secondary analysis of a prospective randomized trial does not exclude the possibility that for trauma patients receiving 10 or more units of blood, an increasing proportion of older blood results in higher early mortality rates.

#### 662 Old and New: What Blood Is PROPPR in Trauma Resuscitation? (Editorial)

*FX Guyette, DM Yealy*

 **665 Minor Blunt Thoracic Trauma in the Emergency Department: Sensitivity and Specificity of Chest Ultralow-Dose Computed Tomography Compared With Conventional Radiography**

(Brief Research Report)

*F Macri, J Greffier, E Khasanova, P-G Claret, S Bastide, A Larbi, X Bobbia, FR Pereira, J-E de la Coussaye, JP Beregi*

*What question this study addressed:* Does ultralow-dose chest computed tomography (CT) provide advantages in accuracy similar to those of standard-dose chest CT but at lower radiation doses? *What this study adds to our knowledge:* This prospective observational pilot study of 160 patients with blunt thoracic trauma found that ultralow-dose CT produced acceptable image quality, was highly sensitive and specific for injuries compared with standard chest CT, and was more diagnostically reliable than radiograph.

**671 Evaluation of US Federal Guidelines (Primary Response Incident Scene Management [PRISM]) for Mass Decontamination of Casualties During the Initial Operational Response to a Chemical Incident** (Original Research)

*RP Chilcott, J Lerner, A Durrant, P Hughes, D Mahalingam, S Rivers, E Thomas, N Amer, M Barrett, H Matar, A Pinhal, T Jackson, K McCarthy-Barnett, J Reppucci*

*What question this study addressed:* Several methods of decontamination have been proposed and deployed. Their effectiveness and efficiency had not been rigorously tested previously. *What this study adds to our knowledge:* In healthy ambulatory victims, dry decontamination and ladder pipe decontamination are comparable to full technical decontamination. In nonambulatory victims and those with barriers to following instructions, dry and ladder pipe decontamination take much longer, so more resources must be committed to achieve rapid decontamination.

## IMAGES IN EMERGENCY MEDICINE

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 **577 Thigh Pain Associated With Diarrhea**

*KD Marshall, DM Williams, BS Jackson*

**685 Woman With Red Eyes**

*F Bernardes Filho, L Towersey, R Hay*

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*AR Wheeler, SG Schauer, MD April, RA De Lorenzo/NW Dickert, J Sugarman/LR Klein, BE Driver, ML Martel, JR Miner, JB Cole*

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*SL Talero, S Resnikoff, MI Saboyá-Díaz, AW Solomon/F Bernardes Filho, AdOA Bernardes, VS Ferreira, L Towersey*

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### **The Peer Review Process at *Annals of Emergency Medicine***

Most readers highly value the fact that articles in a journal like ours have undergone formal peer review. Many readers also have a relatively simple understanding of that term as describing a single well-defined process of review by expert reviewers, but it is a lot more complicated and nuanced than that. We therefore provide a very brief summary of our procedures to provide appropriate levels of review for most (but not entirely all) the journal content.

Although we try to be a model among journals for the rigor of our peer review process, like most of them (including the most prestigious) this does not mean that all content is peer reviewed in the same way. All original content (particularly research content) in the journal is peer reviewed by one of the many experts on our editorial board, but additional peer review of every submission by members of our reviewer panel is not always necessary or appropriate. Many submissions are not appropriate for the journal for one fairly obvious reason or another (eg, target audience), so like most other journals we reject many manuscripts after review by an editor. For those which are not obviously inappropriate, however, we receive far more submissions than we can publish, so our further process seeks to identify the best of the best.

The vast majority of scientific content that we publish is critically reviewed first by members of our editorial board with specific expertise, and then gets additional scrutiny from our expert reviewers. Our most stringent level of review is reserved for original research, which will form the basis of the scientific record in the future. These submissions are reviewed by at least two of our expert reviewers who are blinded to the identity of the authors. Quite a few papers are reviewed more than once, and sometimes in particularly complex cases 5 or 6 reviewers and editors may be involved, including deputy editors. During this process there is much consultation and discussion between editors, reviewers, and authors and recommendations are made to the authors. Sometimes that discussion exceeds the length of the original paper itself, and it certainly is a laborious and time-consuming process. Editors and reviewers must disclose potential conflicts of interest which are managed as per a rigorous policy (<http://www.annemergmed.com/content/policies-coi>). Virtually no original research is accepted with no revisions whatsoever, and our authors strongly agree that in general the process improves the quality of the final manuscript. Once it has been discussed, revised, and received the final stamp of approval from the supervising editor (whose name is always published with the manuscript for transparency), all original science content in the journal undergoes a final review by the editor in chief before acceptance.

None of this means the final article is irrefutable truth; such a thing does not exist in science where our state of knowledge is (we hope) constantly evolving and no study should be judged in isolation. But it does mean that we've asked all the appropriate questions we could think of, made suggestions, and required revisions to make the paper as complete and transparent to replication as possible.

This process for original research is the most rigorous and is probably what most readers think of as "formal peer review," but the journal contains much other content of a factual and scientific nature which does not lend itself to this approach. For example, we have a number of regular journal features (like News & Perspective, CDC Update, NHTSA Notes, etc) that are updates written by selected topic experts on a routine basis. These are also reviewed by an editor but not sent out for additional review. A very few items, such as ACEP Clinical Policies, are published verbatim from the experts that develop them and are not revised (for obvious reasons); this fact is published along with each.

There are always some exceptions to the above processes as we develop new types of content or relatively unique contributions occur. We try to describe the particular variants of peer review that were used for each of these, or if there was none, that is made clear as well. Our goal is to provide as much oversight as is needed and logistically practical, and to enable readers to determine what that level of oversight was as conveniently as possible.