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Annals of Emergency Medicine

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CARDIOLOGY

 **171 Effect of a HEART Care Pathway on Chest Pain Management Within an Integrated Health System** (Original Research)

AL Sharp, AS Baecker, E Shen, R Redberg, M-S Lee, M Ferencik, S Natsui, C Zheng, A Kawatkar, MK Gould, BC Sun

What question this study addressed: This prospective before-and-after study of approximately 65,000 emergency department (ED) patients sought to determine whether implementation of a clinical pathway based on the History, ECG, Age, Risk Factors, and Troponin (HEART) score could safely increase the proportion of patients discharged directly from the ED without extensive observation or stress testing.

What this study adds to our knowledge: Implementation of the HEART score decreased hospital admission and stress testing within 30 days by 1% to 3% each, without an observed increase in missed myocardial infarction or increased 30-day mortality.

 **181 Can a HEART Pathway Improve Safety and Diagnostic Efficiency for Patients With Chest Pain?** (Editorial)

GD Innes

 **187 HEART Score Risk Stratification of Low-Risk Chest Pain Patients in the Emergency Department: A Systematic Review and Meta-Analysis** (Systematic Review/Meta-Analysis)

J Laureano-Phillips, RD Robinson, S Aryal, S Blair, D Wilson, K Boyd, CD Schrader, NR Zenarosa, H Wang

What question this study addressed: This study confirmed the findings of a previous systematic review and also examined prespecified subgroups for whom the authors hypothesized that the sensitivity of a low-risk History, ECG, Age, Risk Factors, and Troponin (HEART) score might be higher. *What this study adds to our knowledge:* After removal of studies that excluded patients with any positive troponin results, the studies that tested the modified HEART score and those that used only high-sensitivity troponins had the highest sensitivity for predicting short-term major adverse cardiac events (97% and 98%, respectively). Lower 95% confidence intervals were 96% and 91%, respectively.

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🔗 **204 Analysis of How Emergency Physicians' Decisions to Hospitalize or Discharge Patients With Acute Heart Failure Match the Clinical Risk Categories of the MEESI-AHF Scale**

(Original Research)

Ó Miró, X Rossello, V Gil, FJ Martín-Sánchez, P Llorens, P Herrero-Puente, J Jacob, P Piñera, EM Mojarro, FJ Lucas-Imbernón, L Llauger, C Agüera, MP López-Díez, A Valero, H Bueno, SJ Pocock, on behalf of the ICA-SEMES Research Group

What question this study addressed: How well does current emergency physician practice agree with the Multiple Estimation of Risk Based on the Emergency Department Spanish Score in Patients With Acute Heart Failure (MEESI) heart failure risk-prediction tool? *What this study adds to our knowledge:* In this observational study of 7,930 patients from 34 Spanish emergency departments (EDs), physician admission decisions correlated well with increasing MEESI-predicted risk. However, 19% of increased-risk patients were discharged home. Regardless of predicted risk, discharged patients were at higher risk for repeated ED visits and readmission.

🔗 **216 Evaluation of Outpatient Cardiac Stress Testing After Emergency Department Encounters for Suspected Acute Coronary Syndrome** (Original Research)

S Natsui, BC Sun, E Shen, Y-L Wu, RF Redberg, M-S Lee, M Ferencik, C Zheng, AA Kawatkar, MK Gould, AL Sharp

What question this study addressed: The study uses existing data sets to determine compliance with urgent outpatient stress testing and 30-day incidence of major adverse cardiac events. *What this study adds to our knowledge:* In a highly selected cohort of 7,922 patients (one third of emergency department encounters were included) treated in a well-integrated health care system, only 31% had stress testing within 72 hours. There were no deaths; 0.9% had a 30-day major adverse cardiac event that was not associated with the timing of stress testing.

PAIN MANAGEMENT AND SEDATION

🔗 **224 Acute Pain Resolution After an Emergency Department Visit: A 14-Day Trajectory Analysis** (Original Research)

R Daoust, J Paquet, A Cournoyer, É Piette, J Morris, J Lessard, V Castonguay, G Lavigne, J-M Chauny

What question this study addressed: What does pain resolution look like after an emergency department (ED) visit that included an outpatient opioid prescription? *What this study adds to our knowledge:* Using a 14-day patient diary for 372 patients from a single urban site, 6 distinct trajectories of recovery occurred, ranging from no to severe pain. Age, underlying condition, pain score at ED discharge, and opioid use were all associated with the patterns.

🔗 **233 Randomized Trial of Intravenous Lidocaine Versus Hydromorphone for Acute Abdominal Pain in the Emergency Department** (Original Research)

E Chinn, BW Friedman, F Naeem, E Irizarry, F Afrifa, E Zias, MP Jones, S Pearlman, A Chertoff, A Wollowitz, EJ Gallagher

What question this study addressed: Can intravenous lidocaine provide analgesia comparable to that of intravenous hydromorphone for emergency department patients with acute abdominal pain? *What this study adds to our knowledge:* In this randomized study of 154 patients, fixed-dose lidocaine at 120 mg intravenously was less effective than fixed-dose hydromorphone at 1 mg intravenously and was associated with a greater need for rescue analgesics. Serious adverse events were uncommon with both agents.

🔗 **241 Prehospital Analgesia With Intranasal Ketamine (PAIN-K): A Randomized Double-Blind Trial in Adults** (Original Research)

G Andolfatto, K Innes, W Dick, S Jenneson, E Willman, R Stenstrom, PJ Zed, G Benoit

What question this study addressed: How does intranasal ketamine at 0.75 mg/kg compare with saline solution placebo for pain control in out-of-hospital adults when added to baseline nitrous oxide? *What this study adds to our knowledge:* In this randomized, double-blind, clinical trial of 120 subjects, significantly more experienced clinically important reductions in pain scores at 30 minutes with ketamine than placebo (76% versus 41%). Subjects receiving ketamine had more adverse events, but none serious.

(FREE) **251 Is the Mallampati Score Useful for Emergency Department Airway Management or Procedural Sedation?** (Review Article)

SM Green, MG Roback

We review the literature in regard to the accuracy, reliability, and feasibility of the Mallampati score as might be pertinent and applicable to emergency department airway management and procedural sedation.

GERIATRICS

(FREE) **260 Clinical Benefit of Hospitalization for Older Adults With Unexplained Syncope: A Propensity-Matched Analysis** (Original Research)

MA Probst, E Su, RE Weiss, AN Yagapen, SE Malveau, DH Adler, A Bastani, CW Baugh, JM Caterino, CL Clark, DB Diercks, JE Hollander, BA Nicks, DK Nishijima, MN Shah, KA Stiffler, AB Storrow, ST Wilber, BC Sun

What question this study addressed: Using prospective data from 2,492 patients aged 60 years and older who presented with syncope and for whom no serious diagnosis was identified in the emergency department (ED), this study compares rates of 30-day serious adverse events for those who were hospitalized versus those who were discharged from the ED. *What this study adds to our knowledge:* Among propensity score–matched patients, rates of serious adverse events for hospitalized and discharged patients were similar.

270 Factors Associated With Geriatric Frequent Users of Emergency Departments

(Brief Research Report)

EM Castillo, JJ Brennan, J Howard, RY Hsia, C Chalmers, TC Chan, KJ Ko

What question this study addressed: What are the characteristics of elderly patients who use nonfederal emergency departments (EDs) 6 or more times per year in California? *What this study adds to our knowledge:* Of elderly patients, 5.7% were frequent users; they accounted for 21.2% of all ED visits by this group. Higher numbers of comorbidities, as well as pain and injury reasons for visits, were predictors of high use.

(CME) **276 Goals-of-Care Conversations for Older Adults With Serious Illness in the Emergency Department: Challenges and Opportunities** (Concepts)

K Ouchi, N George, JD Schuur, EL Aaronson, C Lindvall, E Bernstein, RL Sudore, MA Schonberg, SD Block, JA Tulskey

We describe the current state of goals-of-care conversations in the emergency department, outline the challenges to conducting these conversations, and recommend a research agenda to better equip emergency physicians to guide shared decisionmaking for end-of-life care. Applying best practices for serious illness communication may help emergency physicians empower such patients to align their future medical care with their values and goals.

GENERAL MEDICINE

285 Scope and Influence of Electronic Health Record–Integrated Clinical Decision Support in the Emergency Department: A Systematic Review (Systematic Review/Meta-Analysis)

BW Patterson, MS Pulia, S Ravi, PLT Hoonakker, A Schoofs Hundt, D Wiegmann, EJ Wirkus, S Johnson, P Carayon

What question this study addressed: This systematic review identified all published studies that evaluated decision support systems placed in extant electronic health records to determine their effect on decisionmaking or patient outcome. *What this study adds to our knowledge:* The authors found 42 studies of various quality. There were few randomized trials and few studies that assessed patient outcome. Most interventions appeared to improve the process of care, although use of the interventions by physicians was spotty.

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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.