

# Emergency Medicine Research News

## July 2019

*Conducting innovative clinical and translational emergency care research to advance the health of the people of Wisconsin and beyond.*

### Top Stories

#### **2019 DEM Graduation Award Winners**

A special congratulations go out to our own **Brian Patterson MD MPH** and **Srikar Adibhatla**, who have won **2019 Department of Emergency Medicine Graduation Awards!** These awards are given to exceptional team members, each dedicated in their own role, to providing outstanding and collaborative care for our patients and families. Dr. Patterson and Srikar received their awards at the 2019 DEM Graduation Ceremony in June. Thank you for all that you do for our department, Brian and Srikar!



EM Faculty Award for Excellence in Scholarship



Emergency Department Research Coordinator Award

#### **Kudos**

-Kudos to **Michael Replinger MD PhD**, who was recently appointed to the American College of Radiology's Appropriateness Criteria Expert Panel as the representative for the Society for Academic Emergency Medicine! This important working group reviews clinical topics related to making appropriate imaging or treatment decisions for a specific clinical condition. The panel contributes to employing evidence-based guidelines to help providers enhance quality of care and contribute to the most efficacious use of radiology. Congrats, Mike!

-Kudos to **Janis Tupesis MD**, for his recent presentation of global health and emergency medicine education in Seoul, South Korea! As an **Invited speaker** at the 18th International Conference on Emergency Medicine (ICEM: June 12-15, 2019), Dr. Tupesis shared his ongoing "Leadership in Low-Middle Income Countries" project at a Special Interest Group session (Across the Continuum of Education in Emergency Medicine - Learning to Lead). His project has been shared across several countries already this year, including South Africa, Tanzania, and Rwanda. Awesome work, Janis!

-Kudos to our EDRC team who sponsored a farewell celebration for **Austin Albert** and **Srikar Adibhatla** to see them off to medical school. Austin will be attending the Midwestern University Chicago College of Osteopathic Medicine. Srikar will head to the University of Maryland. The team and other staff members bonded over beer and a sunset at the Memorial Union Terrace. Best of luck, Austin and Srikar!



### **NAEMSP 2020 - Call for Abstracts**

NAEMSP is now accepting abstract submissions for the NAEMSP 2020 Annual Meeting on January 6-11 in San Diego, CA. Abstracts will be peer reviewed in a blinded fashion by NAEMSP Research Committee members. Abstracts will be selected for oral or poster presentation. All accepted abstracts will be published in Prehospital Emergency Care (PEC), the official journal of NAEMSP.

**The deadline for submissions is August 5, 2019.**

[Review Guidelines and Submit Here!](#)



## Upcoming Events

### **VIP Grand Rounds**

[Chronic Kidney Disease in the ED](#)

July 18, 2019

10:00a.m.-10:50a.m.

Olivia Bailey, MD

**Independence Day**, July 4, 2019

**Resident Retreat**, July 11, 2019

**Clark Cup**, July 21, 2019

Westmorland Park, 4114 Tokay Blvd. Madison, WI

11:00a.m.

## Recent Publications

### **Manuscripts:**

**Patterson BW, Engstrom CJ, Sah V, Smith MA, Mendonca EA, Pulia MS, Replinger MD, Hamedani AG, Page D, Shah MN.** Training and Interpreting Machine Learning Algorithms to Evaluate Fall Risk After Emergency Department Visits. [Medical Care. 2019; 57\(7\): 560-566.](#)

**Damewood SC, Leo M, Bailitz J, Gottlieb M, Liu R, Hoffmann B, Gaspari RJ.** Tools for Measuring Competency in Clinical Ultrasound: Recommendations from the Ultrasound Competency Work Group. [AEM Education and Training. June 2019.](#)

**Sharp BR, Johnson J, Hamedani AG, Hakes EB, Patterson BW.** What Are We Measuring? Evaluating Physician-Specific Satisfaction Scores Between Emergency Departments. [Western Journal of Emergency Medicine. 2019;](#)

[20\(3\): 454-459.](#)

**Pulia MS**, Fox B. Antibiotics Should Not Be Routinely Prescribed After Incision and Drainage of Uncomplicated Abscesses. [Annals of Emergency Medicine. 2019; 73\(4\): 377-378.](#)

**Pulia MS**, et al. Impact of Emergency Medical Services Activation of the Cardiac Catheterization Laboratory and a 24-Hour/Day In-Hospital Interventional Cardiology Team on Treatment Times (Door to Balloon and Medical Contact to Balloon) for ST-Elevation Myocardial Infarction. [The American Journal of Cardiology. 2019; 124\(1\): 39-43.](#)

Frost A, Ritter DJ, Trotter A, **Pulia MS**. Acute Angle-Closure Glaucoma Secondary to a Phakic Intraocular Lens, an Ophthalmic Emergency. [Clinical Practice and Cases in Emergency Medicine. 2019; 3\(2\): 137-139.](#)

Mewes JC, **Pulia MS**, Mansour MK, Broyles MR, Nguyen HB, Steuten LM. The cost impact of PCT-guided antibiotic stewardship versus usual care for hospitalised patients with suspected sepsis or lower respiratory tract infections in the US: A health economic model analysis. [PLoS ONE. 2019; 14\(4\): e0214222.](#)

Hose BZ,...**Ross JC**, et al. Physician Perceptions of the Electronic Problem List in Pediatric Trauma Care. [Applied Clinical Informatics. 2019; 10\(1\): 113-122.](#)

White JL,...**Shah MN**, et al. Orthostatic vital signs do not predict 30 day serious outcomes in older emergency department patients with syncope: A multicenter observational study. [The American Journal of Emergency Medicine. March 2019.](#)

Probst MA,...**Shah MN**, et al. Clinical Benefit of Hospitalization for Older Adults With Unexplained Syncope: A Propensity-Matched Analysis. [Annals of Emergency Medicine. May 2019.](#)

Salwei ME, Carayon P, Hundt AS, Hoonakker PLT, Agrawal V, Kleinschmidt P, Stamm J, Wiegmann D, **Patterson BW**. Role network measures to assess healthcare team adaptation to complex situations: the case of venous thromboembolism prophylaxis. [Ergonomics. 2019; 62\(7\): 864-879.](#)

Yi PH, Golden SK, **Harringa JB**, Kliewer MA. Readability of Lumbar Spine MRI Reports: Will Patients Understand? [American Journal of Roentgenology. 2019; 212\(3\): 602-606.](#)

Hoonakker PLT,...**Ross JC**, et al. Information flow during pediatric trauma care transitions: things falling through the cracks. [Internal and Emergency Medicine. May 2019.](#)

**Book Chapters:**



**Burns WP**, Dresden SM. Chapter 8: Pain, Opioid Use, and Palliative Care of Older Adults in the Emergency Department. [Geriatric Emergencies: A Case-Based Approach to Improving Acute Care](#). New York, NY: Springer. In Press.

## **Studies Currently Enrolling in the ED**

### **All of Us**

The purpose of this study is to build a national database that will be available to researchers to further precision medicine. Enrollers will approach patients to participate, help them go through the portal to complete the baseline surveys, and schedule follow-up appointments with patients for bio-specimen collection. We are hoping to enroll family members and guests in this study as well. For questions, see Dr. Manish Shah.

### **Clinical Evaluation of the Omron Wheeze Detector Prototype and Algorithm**

The purpose of this study is to test a wheeze detector prototype created by Omron Healthcare in pediatric patients with a history of asthma or suspected of having asthmatic symptoms. This is a new protocol but is a continuation of the previous Omron study that is more tailored to the target patient population. Enrollers will take a 30-second recording of eligible patients breathing to capture lung sounds of interest. For questions, see Dr. Manish Shah or Dr. Michael Kim.

### **Engineering Safe Care Journeys for Vulnerable Older Adults**

As a part of the AHRQ grant titled “Engineering Safe Care Journeys for Vulnerable Older Adults”, researchers from the Wisconsin Institute for Healthcare Systems Engineering will soon begin conducting observations in the ED to observe disposition decision-making discussions between patients and clinicians. Their intent is to better understand the disposition decision-making process for older adult patients and barriers/facilitators in the process. They will use these data to design a tool that will improve transitions from the ED to the hospital, the patient’s home and skilled nursing facilities. If you have any questions or concerns about the observations, please contact the study PI, Dr. Pascale Carayon ([pcarayon@wisc.edu](mailto:pcarayon@wisc.edu)).

### **Evaluating the Utility of Thermal Imaging in Diagnosing Cellulitis for Lower Extremity Complaints in the Emergency Department**

The main purpose of the study is to determine the temperature gradient between affected and unaffected legs in patients with cellulitis and compare the difference in temperature between cases of cellulitis and pseudocellulitis. A secondary purpose is to assess the impact of thermal imaging data on diagnostic assessments of potential cellulitis cases when added to standard techniques. For questions, see Dr. Mike Pulia.

### **ORBEX**

The purpose of this study is to assess whether administering ORal Bacterial EXtract to pediatric patients at risk of developing asthma will prevent these patients from developing asthma. The study is being done by Dr. Dan Jackson in Asthma & Allergy and is targeting patients between 5 and 17 months old with asthma risk factors. Enrollers will explain the study to potentially eligible families and obtain permission to contact for the study team to follow up with interested families. For questions, see Dr. Manish Shah or Dr. Dan Jackson.

### **Sonographic Cardiopulmonary Features of Early Sepsis**

This study aims to correlate cardiopulmonary sonographic findings in patients with early severe sepsis with the need for vasopressor support and positive pressure ventilation, as well as mortality and level of care on admission. Ultrasound faculty consent and enroll ED patients that have the sepsis BPA pop up in HealthLink. For questions, see Dr. Nikolai Schnittke or Dr. Sara Damewood.

### **Study Close-Outs!**

#### **Caregiver Perspectives on Recruiting Patients with Memory Challenges into Research**

The EDRC Program recently wrapped up recruitment for a qualitative study looking to understand the viewpoints of family caregivers for patients with dementia on participating in research. This study was conducted by Andrea Gilmore-Bykovskiy, PhD RN in the School of Nursing. The EDRCs obtained contact information for over 30 caregivers during eight months of recruitment. The Gilmore team is continuing to conduct qualitative interviews with these caregivers.

#### **Paramedic-Coached ED Care Transitions to Help Older Adults Maintain their Health**

After nearly three and a half years of recruitment, Dr. Shah's Paramedic-Coached ED Care Transitions R01 has come to a close. The EDRC Program enrolled the last patient on Sunday, June 30th, 2019, reaching 893 subjects enrolled during the study and screening over 25,000 patients. This study investigated the effect of a paramedic visit within 48 hours of discharge from the ED on 30-day recidivism in the geriatric population.



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