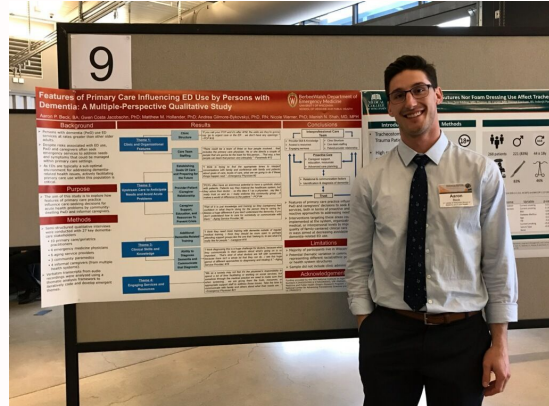


# Emergency Medicine Research News

## May 2019

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

### Top Stories



### **27th Annual Wisconsin Emergency Medicine Research Forum, April 4, 2019 - AWARDS**

Congratulations to all who presented at the UW/MCW/WACEP Research Day in Milwaukee at the Harley Davidson Museum. The quality of the research was impressive and all presenters did an excellent job! Thank you all for participating in this wonderful event.

A special congrats go out to our own DEM award winners:

**Michael Ward, MD:** **Career Development Award** for his presentations “The Effect of Body Mass Index on Fluid Resuscitation in Severe Sepsis and Septic Shock” and “Effect of Intravenous Push Antibiotic Administration on Antibiotic Therapy Delays in Sepsis”

**Nia Cayenne** (undergraduate research assistant): **Best Student Award** for her presentation “Social Isolation as a Predictor of Post-ED Visit Follow-up by Older Adults”

**Aaron Beck** (Shapiro Program medical student): **Best Poster Award** for his presentation “Features of Primary Care Influencing ED Use by Persons with Dementia: A Multiple-Perspective Qualitative Study”

### **SAEM 2019 - Top Scoring Presentation Awarded **Blue Ribbon****

Congratulations to our own **Alok Harwani MD**, **Brian Sharp MD**, and **Joshua Glazer MD** for being awarded a **blue ribbon** and being identified in the "Gallery of Excellence" at the SAEM Annual Meeting in May 2019. This award from SAEM is given to the top scoring posters at the Annual Meeting.

In addition, Dr. Harwani will be presenting this research, "Positive Screening for Rigors is Strongly Correlated With Bacteremia in Patients With Suspected Infection", as a lightning oral presentation on May 17, 2019.

## Newly Awarded Grants



-Congratulations to **Jessica Schmidt MD**, **James Svenson MD**, and the **Global Health team** for having their **UW-Madison Global Health Institute - GHI grant** funded! This research, "Madison to Mbale: Bringing Cardiopulmonary Ultrasound to Ugandan Children", will build the capacity of the providers in Uganda to use ultrasound to care for critically ill children and to characterize the acute cardiopulmonary pathophysiology of children in shock. This grant will also help support the work of our incoming Global Health fellow, **Arthur Chiu MD**, and the providers in Uganda.

-Congrats to **Rebecca Green** for having an **Associated Students of Madison grant** awarded to her student organization, Interprofessional Health Council. The mission of their organization is to facilitate the exchange of information among health professional students. The grant will support their annual spring summit, which is open to students, faculty, and staff. The theme this year is underserved populations. At this event, there will be a keynote speaker and a roundtable discussion about a patient case among people from different health professions programs.



-Congrats to **Nia Cayenne** for being named a McNair Scholar! The **McNair Scholars Program** creates a bridge to graduate education for undergraduate students at the University of Wisconsin–Madison. This program is funded by the US Department of Education TRIO grant and it aims to increase graduate school enrollment of students from underrepresented segments of society. The program provides funding for students to engage in research with a faculty mentor at UW-Madison, as well as funding for graduate school applications and visits.

## Kudos

-Congrats to our own **Kevin Emmerich MD MS**, **Michael Steuerwald MD**, **Nicholas Lepa MD**, **Louis Scratish MD**, **Ryan Wubben MD**, and **Brian Jennett MD**, for being awarded **Best Poster** ("Comparison of Flight Physician operated Hyper-Angulated and Standard Geometry Video Laryngoscopy Tracheal Intubation on a Helicopter in a Manikin") at the Critical Care Transport Medicine Conference (CCTMC) in April 2019.

-**Brian Patterson MD MPH**, was the April 2019 **AGEM Author Spotlight**. He was the focus of this accolade for his recent research and ongoing efforts to apply informatics-based approaches to generate actionable insights to improve emergency care for older adults. Great work, Brian!



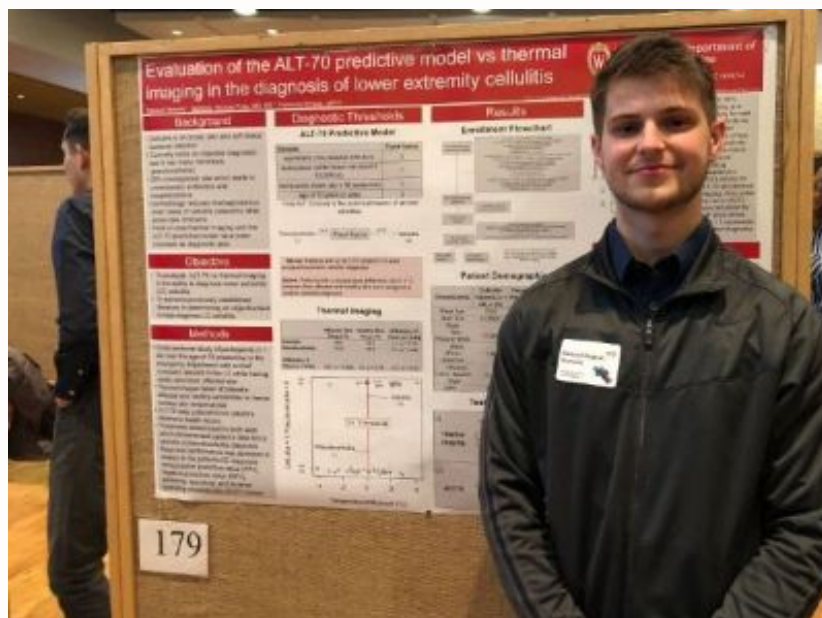
[Check out the Article Here!](#)

-Kudos to **Michael Ward MD**, whose research and article "Comparison of SIRS, qSOFA, and NEWS for the early identification of sepsis in the Emergency Department" was covered by an Emergency Medicine blog, **REBEL EM**. The blog piece, "Early Sepsis Screening in the Emergency Department", highlighted prospective studies comparing NEWS (National Early Warning Score), to SIRS (Systemic Inflammatory Response System), and qSOFA (quick Sepsis-related Organ Failure Assessment), which may drive change in the early evaluation of septic patients in the ED. So which of the following severity scores: SIRS, NEWS or qSOFA, was the most accurate for the identification of severe sepsis and septic shock during ED triage? The authors found NEWS to be more accurate when compared with both SIRS and qSOFA for the early detection of severe sepsis and septic shock, septic shock alone and sepsis-related mortality.

[Early Sepsis Screening in the Emergency Department](#)

-Kudos to **Michael Pulia MD MS**, whose antibiotic stewardship research and ISICEM 2019 (International Symposium on Intensive Care and Emergency Medicine) presentations ("Optimal Antibiotic Use in the ED and Challenges to Antibiotic Stewardship) were featured in the **ICU Management and Practice Newsletter**. The article highlights Dr. Pulia's work on cellulitis, procalcitonin prescribing and the increased emphasis that hospitals need to implement their own antibiotic stewardship programmes within emergency departments because they are an important setting for stewardship.

[#ISICEM19 - Dr. Pulia in the News](#)





-Kudos to **Eddie Harwick**, on his poster presentation, "Evaluation of the ALT-70 predictive model vs. thermal imaging in the diagnosis of lower extremity cellulitis," at the UW-Madison Spring 2019, Biology 152 Undergraduate Mentored Research Poster Session. This presentation is a culmination of a semester of research with mentors **Michael Pulia MD MS** and **Rebecca Schwei MPH**.

## ACEP 2019 - Call for Abstracts

ACEP is now accepting abstract submissions for the ACEP19 Research Forum on October 27-29 in Denver, CO.

Abstracts will be peer-reviewed for presentation at the 2019 Research Forum during ACEP's Scientific Assembly.

**The deadline for submissions is May 23, 2019.**

[Review Guidelines and Submit Here!](#)

## Upcoming/Recent Presentations (DEM authors listed)

### [Global Health Tuesday - Global Health Institute of UW-Madison](#)

**Janis Tupesis, MD:** ["The Changing Face of Emergency Care: People, Policy, Politics"](#)

April 30, 2019 - 5:00p.m., HSLC 1309

**James Svenson, MD:** ["Technology and Diabetic Care in Rural Guatemala"](#)

April 24, 2019 - 4:30p.m., HSLC 1309

### [Society for Academic Emergency Medicine \(SAEM\) Annual Meeting, May 14-17, 2019](#)

#### Oral Abstract Presentations, Lightning Orals, and ePosters:

\*presenting author

**A. Beck\*, G. Jacobsohn, M. Hollander, and MN. Shah:** "Features of Primary Care Influencing Emergency Department Use by Persons with Dementia: A Multiple Perspective Qualitative Study"

**N. Cayenne\*, G. Jacobsohn, R. Mi, M. Lohmeier, and MN. Shah:** "Social Isolation as a Predictor of Post-Emergency Department Visit Follow-up by Older Adults"

**A. Harwani\*, J. Glazer, A. Hamedani, D. Babb, and B. Sharp:** "Positive Screening for Rigors is Strongly Correlated With Bacteremia in Patients With Suspected Infection"

**G. Jacobsohn\*, B. Patterson, A. Maru, M. Zhong, K. Taylor, and MN. Shah:** "Identifying Falls in Emergency Department Provider Notes Using Natural Language Processing"

**B. Patterson\*, V. Sah, C. Engstrom, M. Pulia, M. Repplinger, A. Hamedani, and MN. Shah:** "Training and Interpreting Machine Learning Algorithms to Evaluate Fall Risk After Emergency Department Visits"

**J. Schmidt\*, J. Svenson, and J. Tupesis:** "Sweeter with SUGAR: Enhancing predeparture training with Simulation Use for Global Away Rotations"

**MN. Shah:** "Accuracy of InterQual Criteria in Determining Observation vs Inpatient Status in Older Adults with Syncope"

**MN. Shah:** "A Novel Community Paramedicine ED-to-Home Care Transitions Program for Rural Older Adults"

**MN. Shah:** "Determinants of Repeat Emergency Department Visits Among the Rural Older Adults"

**J. Tupesis:** "The Practitioner's Guide to Global Health: an online curriculum preparing medical learners for field experiences"

**M. Ward:** "The Effect of Body Mass Index on Fluid Resuscitation in Severe Sepsis and Septic Shock"

**M. Ward:** "Does Race or Insurance Predict Mortality or Emergency Physician Compliance With National SEP-1 Quality Measures?"

**M. Ward:** "Predictors of Adherence to Centers for Medicare & Medicaid Services SEP-1 Sepsis Treatment Guidelines in the Emergency Department"

**M. Ward:** "Fluid Resuscitation in Septic Patients With Comorbid Congestive Heart Failure"



### Upcoming Events

#### **EPIC XGM**

April 29 - May 10, 2019 (Verona, WI)

#### **AGS 2019**

May 2-4, 2019 (Portland, OR)

#### **SAEM 2019**

May 14-17, 2019 (Las Vegas, NV)

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**WI Doctor Day**, May 1, 2019

#### **VIP Grand Rounds**

May 2, 2019

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

Mark Bisanzo, MD, DTMH

**Graduation (UW SMPH)**, May 10, 2019

**WI PA Day**, May 14, 2019

#### **Research Lecture** (Studies of Diagnostic Accuracy)

Thursday, May 23, 2019

9:00a.m.-9:50a.m

Brian Patterson, MD, MPH

**Memorial Day**, May 27, 2019



## **Recent Publications**

### **Manuscripts:**

**Schnapp BH, Caretta-Weyer HA,...Kraut AS**, et al. Curated Collections for Clinician Educators: Five Key Papers on Graduated Responsibility in Residency Education. [Cureus. 2019; 11\(4\): e4383.](#)

Griffey RT,...**Sharp BR**, et al. Critical Review, Development, and Testing of a Taxonomy for Adverse Events and Near Misses in the Emergency Department. [Academic Emergency Medicine. March 2019.](#)

## **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.

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

This is a qualitative study lead by Dr. Gilmore-Bykovskiy in the School of Nursing that aims to better understand how to include patients with dementia and their caregivers in research.

Caregivers of patients with dementia will be approached and asked if they would be willing to participate in an informal interview with a member of the study team. 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.

### **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.

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.

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

The purpose of this study is to test the overall hypothesis that a community-based, paramedic-coordinated ED-to-home Care Transition Intervention will improve community-dwelling older adults' post-ED health outcomes and reduce cost. This study will include older adults discharged home from the ED, as well as their caregiver. For questions, see Dr. Manish Shah.

#### **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.



**BerbeeWalsh Department of  
Emergency Medicine**  
UNIVERSITY OF WISCONSIN  
SCHOOL OF MEDICINE AND PUBLIC HEALTH

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*Please send newsletter ideas and suggestions to Sharon West:*

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