Emergency Medicine Research News
October 2018

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

Top Stories

Dr. Michael Pulia Invited to Represent Emergency Medicine at CDC’s Global Antimicrobial Resistance (AMR) Challenge Kickoff Event During the UN General Assembly, 9/25/2018

The U.S. Government is launching a new yearlong initiative to accelerate the fight against antimicrobial resistance across the globe. Led by the Centers for Disease Control, the Antimicrobial Resistance (AMR) Challenge is a way for governments, private industries, and non-governmental organizations worldwide to make formal commitments that further the progress against antimicrobial resistance, a global health priority. Countries can reaffirm their commitment to develop national action plans to combat drug resistance and pledge to:

- Strengthen regulations on the use of antimicrobial drugs
- Improve knowledge and awareness
- Promote best practices
- Foster innovative non-drug approaches and new technologies for diagnosis and vaccines

Antimicrobial Resistance (AMR) is a One Health problem.
AMR is one of the greatest global health issues of our time, and is threatening our progress in healthcare, food security, and life expectancy.

Michael Pulia, MD, MS represented AAEM's Antibiotic Stewardship Task Force at the kickoff in New York City last week. As the Task Force Chair and Director of Emergency Medicine Antimicrobial Stewardship Program at the University of Wisconsin-Madison, Dr. Pulia leads a health services research program aimed at improving the safety and quality of antibiotic use for infectious disease management in the ED. To learn more about Dr. Pulia’s research on antimicrobial stewardship, please visit our Research page. The AMR Challenge launched at the United Nations (UN) General Assembly in

To learn more about national efforts to help fight antibiotic resistance and improve antibiotic prescribing and use, visit the CDC's [Be Antibiotics Aware](https://www.cdc.gov/drugresistance) campaign website.

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**Dr. Michael Repplinger Interviewed by Applied Radiology**

Congratulations to our own Michael Repplinger, MD, PhD who was interviewed by *Applied Radiology* for his work on clinical effectiveness of MRA for suspected pulmonary embolism. The brief article highlights Dr. Repplinger's paper, "Clinical outcomes after magnetic resonance angiography (MRA) versus computed tomographic angiography (CTA) for pulmonary embolism evaluation."

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**Kudos to Colleagues:**

**Rebecca Schwei, MPH**

Cheers to Rebecca Schwei, who is a co-instructor for a new research recruitment professional development opportunity offered through the UW Institute for Clinical and Translation Research: Community-Academic Partnerships Program. See below for event details and registration!

**Research Recruitment Methods and Regulatory Considerations Across Study Populations**

**When:** October 16, 11:00 am – 12:00 pm  
**Where:** 1335 Health Sciences Learning Center  
Representatives from various established clinical research programs and departments will discuss various recruitment methods applicable for different subject populations.

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**Upcoming/Recent Presentations (DEM authors listed)**

The American College of Emergency Physicians (ACEP) annual meeting, October 1-4, 2018

- **M. Repplinger:** "Identifying Barriers to MRI and Ultrasound Use in the Emergency Department" (abstract)  
- **M. Repplinger** and **A. Chiu:** "Diagnostic Accuracy of MRI for the Evaluation of Acute Female Pelvic Pathology" (abstract)  
- **A. Kraut:** "Resident as Clinical Educator Lecture Series" (poster)  
- **B. Sharp:** "Comparing CT Utilization Between Traditional Care and Physician in Triage Models Among Patients with Abdominal Pain" (abstract)
**Upcoming Events**

**VIP Grand Rounds (topics TBD)**
- October 11, 2018 - Emmy Betz, MD
- October 18, 2018 - Naz Karim, MD

**ACEP 2018**
- October 1-4, 2018
  - San Diego, CA

**Journal Club (EMS)**
- Tuesday, October 9, 2018 - 6:30p.m.-8:30p.m.
  - Michael Repplinger, MD, PhD
  - Michael Lohmeier, MD

**IDWeek 2018**
- October 3-7, 2018
  - San Francisco, CA

**EM Nursing Appreciation Week**
- October 7 - 13, 2018

**Race for Research**
- October 27, 2018
  - 5K run/walk, UW-Madison Lakeshore Path

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**Recent Publications**

**Manuscripts:**


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**Protocols Recently Approved by the EMRC**

1. David Feldstein, MD, Josh Ross, MD, and Linda Park, MS, PhD: "Disseminating Child Abuse Clinical Decision Support to Improve Detection, Evaluation, and Reporting"

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**Studies Currently Enrolling in the ED**

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.

**Cobas® vivoDx MRSA Clinical Performance Study Protocol**
The purpose of this study is to evaluate the performance of a new Roche investigational test that is designed to detect live MRSA in nasal samples collected from the nose in less than six hours. We will swab participants' noses two times in each nostril and then the samples will be brought to the lab for analysis. For questions, see Dr. Manish Shah or Dr. Mike Pulia.

**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.

**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-Bykovskyi 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.

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**New Faces**

**Austin Albert**
**Research Enroller** - Austin will be working with our ED Enroller Team and will report to Becky Schwei. Austin graduated from the University of Wisconsin – Madison with degrees in Microbiology and International Studies. Additionally, he received his diploma in Paramedicine from Madison College earlier this year and currently works as an EMT with Waunakee Area
Prior to joining DEM, Austin gained research experience working as a Research Assistant in the Striker Microbiology Lab and as a Research Fellow at Foyrth Studios where he compiled data on topics including foreign affairs, national security, and the military industrial complex.

In his free time, Austin likes to remain very active. He enjoys playing ice hockey, working as a Ski Patroller at Tyrol Basin, and achieving his PADI Divemaster certification.

His email is: ajalbert@medicine.wisc.edu

Collin Engstrom
Research Assistant - Collin will be joining Dr. Brian Patterson’s Research Team and will report directly to Dr. Patterson. Collin is currently a PhD candidate in Computer Science. He is working with Dr. David Page and is focusing on creating machine learning models of genetic data for genotype prediction and its application to individual whole genome data.

In his free time, Collin enjoys cooking, eating Mexican food, growing succulents, and spending time with his family.

His email is: engstrom@medicine.wisc.edu

Jenny Panackal
Student Research Assistant - Jenny will be working with our Research Team and will report to Jessie Libber. Jenny is currently a junior at UW-Madison, and is majoring in Neurobiology and Psychology. After graduation, she is hopes to attend medical school! In addition, Jenny volunteers as a UWPD First Responder, is a student volunteer at AFCH, and has worked as an EMT in her hometown of Burlington, WI.

In her free time, Jenny can be found on the tennis court, enjoying a badger game, or watching her favorite show, The Office, on Netflix.

Her email is: panackal@wisc.edu

Funded Research Studies

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<td>Health IT process for VTE</td>
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<td>Preventing Future Falls among Older Adults</td>
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<td>Improving Antibiotic Stewardship for Long Term Care Facility Residents in the ED</td>
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<td>Improving Antibiotic Stewardship During the Treatment of Skin &amp; Soft Tissue Infections in the ED</td>
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<td>Identifying Barriers and Facilitators to the Implementation of Radiation-Free Imaging Protocols in the ED</td>
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<td>Teamwork &amp; Care Transitions in Pediatric Trauma: Implications for HIT Design</td>
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<td>Disseminating Child Abuse Clinical Decision Support to Improve Detection, Evaluation and Reporting</td>
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<td>Mentoring and Research in Geriatric Emergency Care</td>
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Please send newsletter ideas and suggestions to Sharon West: slwest@medicine.wisc.edu