Introducing PEMMREP

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I am very excited to introduce the Pediatric Emergency Medicine McMaster Research Enrichment Program (PEMMREP) pilot program in the Department of Emergency Medicine at McMaster Children’s Hospital. As you know, both McMaster University and Hamilton Health Sciences are both part of Canada’s top research institutions. As a result, medical research is not only part of our culture, but also part of our efforts to maximize patient care. In 2015, the Journal of Emergency Medicine published articles by Steadman et al. stating the importance of volunteers in medical research. The author stated that, “Utilizing university student volunteers to facilitate research enrollment in the ED is effective and allows for the capture of a high percentage of potentially eligible patients into prospective clinical research studies.” A follow-up article stated that, “A volunteer student program is in high demand for university students interested in health sciences/research and potentially has a beneficial career impact for its participants.”

It is therefore, without exception, that instituting a volunteer program here at McMaster Children’s Hospital Emergency Department will provide not only greater research participation, but also nurture and educate the future clinicians, researchers, and health professionals of tomorrow.

By instituting this program, I encourage all departmental staff physicians to consider being active in research initiation and development. The plan is to develop a robust, year-round volunteer program that will provide the staff assistance in any research related areas such as: patient recruitment, consent, data collection, data entry and manuscript preparation. This newsletter will aim to showcase the active research we have going in the department, acknowledge the hard-work and dedication of the volunteers, and re-iterate the importance of pediatric emergency medicine research in the Hamilton community, Canada and abroad.

Finally, I am very pleased to officially introduce Dr. Mohammed Hassan-Ali as our new PEM Research Coordinator. We are lucky to have a tech-savy and creative RC that will oversee the development of the program. You will see Mohammed around in the ED and in the 2N49I office area. If paging for a potential AOM participant, his record time is arrival in the ED within 2 minutes! Do take the time to make Mohammed feel at home in our ED.
Events & Updates

SUMMER HEATWAVE
Hamilton doctor sits in hot car to warn you of the dangers

Reported by TheSpec.com (Jul 20, 2017)

After 15 minutes, he was sweaty, tired and done.

The chief of pediatric emergency medicine at McMaster Children's Hospital got into a hot car on Wednesday, in a medically supervised experiment meant to show the dangers of leaving children in these confined spaces on hot summer days.

Dr. Anthony Crocco and his team broadcast the experience live on the Hamilton Health Sciences Facebook page, drawing an audience of thousands.

"It doesn't take long to overheat in a hot car," Crocco says. "Even less so for children. Even in moderately hot weather, in the time it takes to go get a coffee or run an errand a child can become dangerously overheated."

As it was livestreamed, members of the Hamilton Paramedic Service began taking Crocco's vital signs and explaining some of the medical risks of heat exposure.

When he got out of the car after about 15 minutes, the thermometer inside was approximately 40 degrees Celsius.

Crocco said he was experiencing sweating, dry mouth, quickened breathing and lethargy — which he added would be magnified in kids.

"Because their bodies are smaller, the time it takes for them to get overheated and dehydrated is much less."

The staff warned that the demonstration should not be tried at home and was only meant to be an educational tool.

"It doesn't take long to overheat in a hot car," Crocco says. "Even less so for children."
RESEARCH ROUNDTABLE
Research Roundtable Rounds will resume in September 2017!

We are excited to announce this new Royal College accredited series in the Department of Pediatrics!

This hybrid of former Work-in-Progress and Research Seminars is an informal, interactive forum for researchers, trainees, allied health staff and research staff to share knowledge and exchange ideas. Some sessions will be project-focused, while others will focus on current research issues/topics; all sessions will provide a collaborative learning experience! Research Roundtable sessions are open to all in the Department of Pediatrics and will be held the first and third Tuesday of every month from 8-9 am in 3A14 unless otherwise communicated.

We want to hear from YOU! Interaction and knowledge sharing are key to the spirit of Research Roundtable, so bring your great ideas.

Upcoming Research Roundtable sessions will be advertised in the Department Digest, on the Pediatrics website, and on the television in 3A, and postings in high-traffic hospital areas (e.g. near elevators). If you would like to receive Outlook meeting requests that populate the date, time, location, and topic of upcoming Seminars in your calendar, email Lindsay Akrong (lakrong@mcmaster.ca) to be added to our distribution list.

Questions? Interested in presenting at a future Research Roundtable session? Contact Karen Choong (choongk@mcmaster.ca).
FACTORS ASSOCIATED WITH CHILD PASSENGER MOTORCYCLE HELMET USE IN CAMBODIA

Abstract:

This study examines factors associated with child passenger helmet use in five Cambodian provinces. We performed an analysis of periodic roadside observations of helmet use over a four-year period. A total of 62,039 child passengers 12 years of age and younger met inclusion criteria and were included in the analysis. Overall, 1369 (2.1%) of child passengers were observed to be wearing a helmet. Most significantly, children were six times more likely to wear a helmet if the driver was wearing a helmet (OR 6.2; 95% CI 5.1–7.5). In addition, the odds of helmet use were noted to be significantly different depending on province, day of the week, time of day and number of passengers on the motorcycle. This study highlights the extremely low rate of child passenger helmet use in Cambodia, and provides priorities for interventions and enforcement to ensure all children are protected from head injury.

Reference:

Research so far...

### Video AOM

**TOTAL**
- **19 PATIENTS ENROLLED**
- **52 MISSED (in July)**
- **1 ENROLLED (in July)**

### PAGE #4545 if your patient:
- Between 6 - 59 months of age
- Primary diagnosis of non-severe AOM
- Eligible for watchful waiting prior to filling antibiotic prescription

### SAFER

**TOTAL**
- **49 PATIENTS ENROLLED**
- **28 MISSED (in July)**
- **0 ENROLLED (in July)**

### PAGE #4545 if your patient:
- Between 6 months - 10 years presenting with CAP:
- Fever (>37.5 C axillary, >37.7 C oral, >38 rectal) recorded in ED or home in the 48h prior to presentation
- Any one of - tachypnea on exam, cough on exam/history, increased work of breathing on exam, auscultatory findings consistent with pneumonia
- Infiltrates on CXR consistent with bacterial CAP as judged by ED physician
- Attending ED physician diagnoses the child with primary CAP
Research so far...

**QAPPE**

- **TOTAL PATIENTS ENROLLED**: 116
- **ENROLLED (in July)**: 15

- **Primary objectives** are: Decreasing unnecessary appendectomies (negative appendectomies), Decreasing unnecessary abdominal U/S and or CT scans, Decreasing unnecessary hospital admissions for serial examinations
- **Secondary objective** is: Acting as a guide for other centers in resource allocation and referral patterns
- **Population**: Pediatric patients (0-18 years) presenting to the ED at MCH with abdominal pain and suspected appendicitis

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**SQUEEZE**

**PAGE #4552 if your patient:**
- Between 29 days to < 18 years of age
- Persistent shock (abnormal perfusion OR low blood pressure OR on a vasoactive infusion like dopamine, epinephrine, or norepinephrine)
- Suspected or confirmed septic shock
- Has received 40 mL/kg of IV fluid (2L for children > or equal to 50 kgs)

*On-call hours: 4:30 pm to 8:30 AM, please dial x76443 to request page. Do not use 87 to send page during on-call hours. If SQUEEZE Trial pager unavailable page Dr. Melissa Parker #2073*
KICK-STARTING A VOLUNTEER PROGRAM IN THE ED

As the new Clinical Research Coordinator for the Department of Pediatric Emergency Medicine, I wanted to highlight here, my goals for the Pediatric Emergency Medicine McMaster Research Enrichment Program.

In the Welcome message, Dr. Kam mentioned the importance of having volunteers in the Emergency Department as a vehicle to drive research participation and increase recruitment. Currently, we have a couple of volunteers in the ED assisting with few of the studies mentioned in sections above. But as you can see, recruitment numbers in July (and in total) are quite low compared to the number of patients that are missed every day. There are many reasons for this: research assistants not being available outside of work hours, physicians (staff, fellow, resident, locum, etc.) unaware of how to identify potential candidates, approach, and/or identify research staff, miscommunication, and lack of organization amongst others. Therefore, my goal is to set-up a volunteer program specifically in the ED to stream-line communication regarding research opportunities and increase research recruitment rates.

Over the next few months, you will see a roll-out of the volunteer program via:

- Advertising PEMMREP to McMaster University undergraduate and medical students
- A very thorough vetting process for hiring and complete orientation of the ED, as well as the current research projects
- A section of the ED dedicated to volunteer space which will be visible; identifying information (vests/badges) so that all ED staff are aware that they are research volunteers
- Broader coverage of recruitment times (we aim to have shifts that cover 24/7)
- Frequent feedback to keep improving the program
- Volunteer recognition via the newsletter and other opportunities (such as publishing, posters, and presentations)

My hope is that once we get the volunteer program up and running that we as a department will not only see a rise in recruitment numbers, but also drum up more research proposals and projects due to the increase in activity.

Please join me in supporting this program. If you have any questions, would like to contribute in any way, or would like to start-up a research project in the ED, feel free to contact me (see Contacts section).
Volunteer Appreciation

RECOGNIZING PEMMREP VOLUNTEERS SIGNIFICANTLY INVOLVED IN RESEARCH ENGAGEMENT

Even before the conception of PEMMREP, the ED has had a students who helped out departmental physicians in the pursuit of research recruitment. One of these students, Jacob Bailey, is highlighted in this month's issue, not only to showcase his role and achievements, but also to show the impact of having research-based opportunities for students in the ED.

Jacob recently graduated from the McMaster Bachelor of Health Sciences program and has been deeply involved with the ED since 2016. He has worked with several physicians such as Dr. Jeffery Pernica and Dr. April Kam, worked on the SAFER and Video AOM studies, and has contributed to over 400+ hours of volunteer service. His roles and responsibilities included: literature reviews, database maintenance, ED surveillance, participant recruitment, REB submissions, manuscript preparation and even graphic design (he designed the SAFER logo).

Even though Jacob will be heading back home to Calgary, AB, he is very grateful for his time at McMaster University and in the ED. He states that, "I consider myself very fortunate and very grateful to have been able to get involved with clinical research and academic medicine so early in my career. The experiences I've had working alongside healthcare professionals and patients have only cemented my desire to pursue a career in medicine and research. While I still have a long way to go, I think that being involved with PEM was a great first step and one that I will not soon forget."

His next step is taking on a Research Assistant position within the Department of Medicine at the University of Calgary. We will miss him and wish him a lot of success in all of his future endeavours! Thank you Jacob!
Have something to say in the next newsletter?

Mohammed Hassan-Ali, MD, MSc
Clinical Research Coordinator
Division of Emergency Medicine
Department of Pediatrics
MUMC 2N49B-I
hassam5@mcmaster.ca
905-521-2100 x 73864