Congratulations to our researchers


**Cheung K.** Smoking Cessation for Emergency Department Patients. Summer Student Research Program Grant, UBC Faculty of Medicine $2000 (2012).


**Filiatrault L.** Can Triage Nurse Initiated X-Ray in Accordance with the Ottawa Ankle Rules Shorten ED Length of Stay? UBC Summer Student Research Program $3,000 (2012).


**Ho K,** Pedersen J, Hanon N. Telemental health medical student mentorship. Pritchard Foundation $25,000 (2012-13).
Congratulations Continued


**Hohl C.** Validation of a Screening Strategy for Adverse Drug Reactions in the Emergency Department. New Investigator Award. CIHR $300,000 (2012 - 17)


**Purssell R,** Kent D, Leong D. Investigation Into the Use of Poison Centre Data in British Columbia for Product Vigilance Activities Associated with Natural Health Products. Health Canada $50,000 (2012).


### Collaborative Research Policy

The VGH Department of Emergency Medicine has a tradition of producing high quality original research, and collaborating on the research initiatives of other VGH Departments or external groups. This academic mission must be balanced with the demands research places on Emergency Department patient care and teaching of Residents and Medical Students. In addition, simultaneous research projects may conflict with one another and may compete for the same patients as well as for the time and attention of our clerical, nursing, and medical staff. For these reasons, all potential studies which require signoff by the VGH Department of Emergency Medicine undergo internal review, approval, and prioritization.

It is expected that one or more members of the VGH Department of Emergency Medicine will be involved academically (as co-applicant on grants, and co-author on publications) on any significant peer-reviewed or investigator-initiated collaborative project conducted in the VGH Emergency Department. This involvement should commence during the development of the study protocol and the ED should receive appropriate acknowledgement for the role it plays for any such projects.

For further information on our research policy or to discuss a potential project please contact our Research Director (Jeff Brubacher; Jbrubacher@shaw.ca).
Research Activities

The VGH Emergency Medicine Research Division had another busy year in 2012. Over twenty research assistants and student volunteers worked on a wide range of research projects. Some of our research is highlighted here:

**Road Safety:** Our road safety research team of Dr Jeff Brubacher, Dr. Herbert Chan (PhD) and Dr. Roy Purssell enrolled the first thousand injured drivers for their study “Cannabis and Motor Vehicle Crashes: A multicentre culpability study”. This CIHR funded study has been launched in 8 trauma centres across BC and will determine the role of marijuana use in causing car crashes. Last spring the team received funding from CIHR and CIHI ($198,868 over two years) for an evaluation of British Columbia’s new immediate roadside penalty (IRP) regime. In Sept 2012, Dr. Brubacher (PI) and Dr. Chan submitted a grant proposal to CIHR to study prescription medications and the risk of motor vehicle crashes. That study was just approved for funding ($526,268) and will be launched this spring. Currently Drs. Brubacher and Chan together with numerous student volunteers are also conducting a pilot study based on interviews with drivers injured in a motor vehicle crash. This study will use a case-crossover design to investigate driver based risk factors for crashing.

**Adverse Drug Reactions:** Dr. Corinne Hohl (PI) is continuing her research into detection and early correction of emergency department patients who present with adverse drug reactions. Dr. Hohl is leading a demonstration project entitled “Implementation of an Emergency Department-Based Adverse Drug Event Screening Strategy: A Demonstration Project”. This regional program has screened over 150,000 patients in 12-months. It is funded by the BC Health Services Purchasing Organization & Vancouver Coastal Health Authority ($1,762,201). In 2012, Dr. Hohl was awarded a CIHR New Investigator Award ($300,000) and invited to join the CIHR-funded Drug-Safety and Effectiveness Network (DSEN).

**Smoking Cessation:** Dr. KaWai Cheung and team continue their smoking cessation research. In a pilot study, they found that 60% of ED smokers would accept referral to Quit Now Services. Subsequently, they completed enrollment (1000 patients) for a randomized-controlled trial of smoking cessation counseling through Quit Now. Dr. Cheung’s team is also looking at the accuracy of patient perception that their ED visit was related to smoking by comparing patient impression with the role smoking has scientifically been shown to play. Finally Dr. Cheung is investigating whether smokers visit the ED more frequently than non-smokers.

**Research Education:** Riyad Abu-Laban, UBC Department of Emergency Medicine Research Director, led a highly successful second annual "NERD Block" (Novel Education in Research & Design) with Quynh Doan in the fall of 2012. This 1 month program involved 34 interactive small group sessions facilitated by faculty members from the Department of Emergency Medicine and Division of Pediatric Emergency Medicine on all aspects of research and
Research Activities Continued

critical appraisal. Participants gained foundational knowledge, interacted with and learned about the research being done by a wide range of Emergency Medicine faculty members and developed and advanced their own research projects. A research publication on the NERD Block is in press with CJEM.

Nurse Initiated X-Rays and ED Length of Stay: Drs. Lyne Filiatrault, Wailliam Lee and their team launched a randomized control study in the VGH Emergency Department (ED) in August 2012. They examined whether triage nurse initiated x-ray in accordance with the Ottawa Ankle Rules will reduce ED length of stay. The study was introduced after educating 14 triage nurses who volunteered to participate. The team obtained funding from the Summer Student Research Program (SSRP) in 2012 and recruited Nancy Liu, a 2nd year medical student, and Lawrence Yau, a 3rd year undergraduate student, who both helped tremendously. The team plans to finish the study by summer of 2013.

Prehospital Care: Dr Eric Vu and collaborators seek to characterize peri-intubation physiology in major trauma and brain-injured patients who underwent endotracheal intubation by BC critical care flight paramedics. Dr. Vu is also assessing the translation of American Heart Association guidelines on CPR performance amongst BC First Responder programs. Over 1500 cardiac arrests were reviewed over a decade which included two iterations of AHA Emergency Cardiovascular Care guidelines. This research will inform Emergency Cardiovascular Care educators on first responder CPR and AED programs.

Student Research: Our research division gives students an opportunity to participate in emergency medicine research. Numerous volunteers help with our smoking cessation, road safety, and other research programs. A one month research elective gives students an opportunity to develop the protocol for a research project of their own. We often have summer research students through the UBC SSRP. Last fall, for the first time, we had a directed studies student with us for 4 months.

Publications


Publications Continued


Publications


20. **Filiatrault L**, Harriman D, **Abu-Laban RB**, FitzGerald JM, **Chahal AM**, **McKnight RD**. Compliance with the Canadian Association of Emergency Physicians’ Asthma Clinical Practice Guidelines at a Tertiary Care Emergency Department. CJEM 2012;14:224-232.


23. Mak E, **Cheung KW**, Mondor F. In-flight Arterial Gas Emboli from a Ruptured Bronchogenic Cyst. CJEM accepted 2012.


Publications


Abstracts and Presentations


9. **Cheung K**. Tobacco Management: Costs of Tobacco, Benefits of Cessation. VCHA Hospital Based Cessation Tobacco Management Workshop, Vancouver, BC.


Abstracts and Presentations Continued


17. Ho K. Leveraging eHealth in Education and Practice: Opportunities, Challenges, Lessons Learned (so far…). University of Georgia Health Professional Education Conference, Mar 2012, keynote speaker.


Abstracts and Presentations Continued


33. McEwen JI; Sachedina A; Du E, McEwen-Doris J. Virtual Patients in Resuscitation: The Use of Virtual Patients for Medical Students' Education in Trauma Resuscitation. The 8’th annual UBCMJ MUS Research Forum, Vancouver, BC, Mar 2012


Abstracts and Presentations Continued


Research Personnel

**Director**
Jeff Brubacher (Jbrubacher@shaw.ca)

**Office Manager**
Jan Buchanan

**Investigators**
- Riyad Abu-Laban (Research Education)
- Jeff Brubacher (Road Safety)
- KaWai Cheung (Smoking Cessation)
- Lyne Filiatrault (Quality Assurance)
- Kendall Ho (Knowledge Translation)
- Corinne Hohl (Adverse Drug Reactions)
- Roy Purssell (Road Safety)
- David Sweet (Sepsis)

**Advisory Committee:**
- Riyad Abu-Laban, MD, MHSc
- Jan Buchanan, RN
- Jeff Brubacher, MD, MSc
- Brian Chung, MD
- Lannon de Best, RN
- Corinne Hohl, MD, MHSc
- Doug McKnight, MD
- Roy Purssell, MD

**Research Associate (Road Safety):**
Herbert Chan, PhD

**Research Coordinators:**
- Angela Aquino (Traumatic Brain Injury)
- Dale Stromberg (Headache Study)
- Setareh Rouhani (Road Safety)

Some of our students and volunteers

Karan D’Souza
Undergraduate Science Directed Studies
Road Safety

Jennifer Li
Year 3 Medicine
Cannabis & MVCs

Daniel Ting
Year 4 Medicine (Queen’s)
EM research Elective

Vahid Mehrnoush
Physician
Driver Interviews

Shayan Shojaie
Smoking Cessation

Jonathan Lee
Year 3 Medicine
Driver Interviews

Ben Tuyp
Year 3 Medicine
Summer Research Program

Dr. Brubacher and Volunteers

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