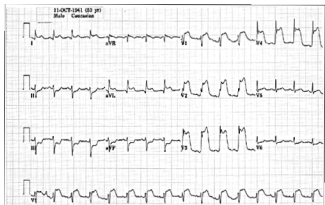


St Paul's Hospital Department of Emergency Medicine Research Update – April 2014



Clinically relevant Research you can use!



Which chest pain patients can safely go home with fewer tests and shorter ED time?

Scheuermeyer FX, Grafstein E, Wong H, Yu E, Boychuk B, Innes G, Gin K, Christenson J. **Development and validation of a prediction rule for early discharge of low-risk emergency department patients with potential ischemic chest pain** [CJEM Volume 16, Number 2, March 2014](#).

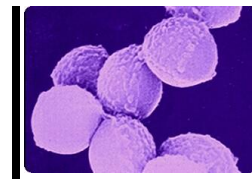


Do I need to worry about biphasic allergic/anaphylactic reactions?

Grunau BE, Li J, Yi TW, Stenstrom R, Grafstein E, Wiens MO, Schellenberg RR, Scheuermeyer FX. **Incidence of Clinically Important Biphasic Reactions in Emergency Department Patients With Allergic Reactions or Anaphylaxis.** [Ann Emerg Med. 2013 Nov 13. p: S0196-0644\(13\)01536-9. doi: 10.1016/j.annemergmed.2013.10.017. \[Epub ahead of print\]](#)



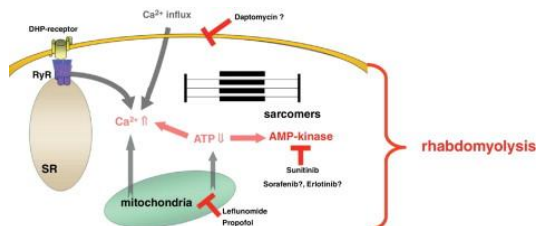
Dr Brian Grunau



What is happening to MRSA Skin and soft tissue rates at St Paul's?

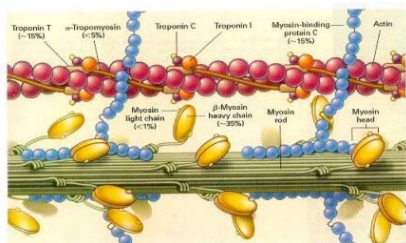
Wilmer A, Lloyd-Smith E, Romney MG, Champagne S, Wong T, Zhang W, Stenstrom R, Hull MW. **Reduction in community-onset methicillin-resistant Staphylococcus aureus rates in an urban Canadian hospital setting.** *Epidemiol Infect.* 2014 March;142(3):463-467. DOI: 10.1017/S0950268813001568

What happens with ED patients with a high CK?



Grunau BE, Pourvali R, Levin A, Wiens MO, Grafstein E, Li J, Joo D, Scheuermeyer FX. Patient **Characteristics and Thirty-Day Outcomes of Emergency Department Patients with Elevated Creatine Kinase.** *Acad Emerg Med.* Forthcoming 2014.

What happens to ED patients who are sent home with a positive troponin?



Brunner N, Scheuermeyer F, Grafstein E, Ramanathan K. **Outcomes of non-ACS patients discharged from the emergency department with troponin positivity.** *CJEM.* 2014 Jan;16(1):1-11.

Peer reviewed Research Publications: 2013-14

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- Cheskes S, Schmicker RH, Verbeek PR, Salcido DD, Brown SP, Brooks S, Menegazzi JJ, Vaillancourt C, Powell J, May S, Berg RA, Sell R, Idris A, Kampp M, Schmidt T, Christenson J; Resuscitation Outcomes Consortium (ROC) investigators. The impact of peri-shock pause on survival from out-of-hospital shockable cardiac arrest during the Resuscitation Outcomes Consortium PRIMED trial. *Resuscitation.* 2014 Mar;85(3):336-42. doi: 10.1016/j.resuscitation.2013.10.014. Epub 2013 Oct 25.
- Grunau BE, Pourvali R, Levin A, Wiens MO, Grafstein E, Li J, Joo D, Scheuermeyer FX. Patient Characteristics and Thirty-Day Outcomes of Emergency Department Patients with Elevated Creatine Kinase. *Acad Emerg Med.* Forthcoming 2014.
- Grunau BE, Christenson J, Brooks SC. Targeted Temperature Management After Out-Of-Hospital Cardiac Arrest: Who, When, Why, and How. *Canadian Family Physician.* Forthcoming 2014.
- Cui Z, Grafstein E, Yip B, Hogg R, Montaner J, Lima V. Modelling clinical progression and health care utilization of HIV-positive patients in British Columbia prior to death. *HIV Med.* 2014 Mar 18. doi: 10.1111/hiv.12151. [Epub ahead of print]
- Callaway CW, Schmicker RH, Brown SP, Albrich JM, Andrusiek DL, Aufderheide TP, Christenson J, Daya MR, Falconer D, Husa RD, Idris AH, Ornato JP, Rac VE, Rea TD, Rittenberger JC, Sears G, Stiell IG; ROC Investigators. Early coronary angiography and induced hypothermia are associated with survival and functional recovery after out-of-hospital cardiac arrest. *Resuscitation.* 2014 Jan 8. pii: S0300-9572(14)00008-2. doi: 10.1016/j.resuscitation.2013.12.028. [Epub ahead of print].
- Meaney PA, Bobrow BJ, Mancini ME, Christenson J, de Caen AR, Bhanji F, Abella BS, Kleinman ME, Edelson DP, Berg RA, Aufderheide TP, Menon V, Leary M; CPR Quality Summit Investigators, the American Heart Association Emergency Cardiovascular Care Committee, and the Council on Cardiopulmonary, Critical Care, Perioperative and Resuscitation. Cardiopulmonary resuscitation quality: [corrected] improving cardiac resuscitation outcomes both inside and outside the hospital: a consensus statement from the American Heart Association. *Circulation.* 2013 Jul 23;128(4):417-35. doi: 10.1161/CIR.0b013e31829d8654. Epub 2013 Jun 25.
- Elterman J, Brasel K, Brown S, Bulger E, Christenson J, Kerby JD, Kannas D, Lin S, Minei JP, Rizoli S, Tisherman S, Schreiber MA; Resuscitation Outcomes Consortium Investigators. Transfusion of red blood cells in patients with a prehospital Glasgow Coma Scale score of 8 or less and no evidence of shock is associated with worse outcomes. *J Trauma Acute Care Surg.* 2013 Jul;75(1):8-14; discussion 14. doi: 10.1097/TA.0b013e318298492e.
- Parashar S, Chan K, Milan D, Grafstein E, Palmer AK, Rhodes C, Montaner JS, Hogg RS. The impact of unstable housing on emergency department use in a cohort of HIV-positive people in a Canadian setting. *AIDS Care.* 2014 Jan;26(1):53-64. doi: 10.1080/09540121.2013.793281. Epub 2013 May 8.
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- Kudenchuk PJ, Brown S, Daya M, Morrison LJ, Grunau BE, Rea T, Aufderheide T, Powell J, Leroux B, Vaillancourt C, Larsen J, Wittwer L, Colella R, Stephens SW, Gamber M, Egan D, Dorian P. Resuscitation Outcomes Consortium – Amiodarone, Lidocaine or Placebo Study (ROC-ALPS): Rationale and Methodology Behind an Out-of-Hospital Cardiac Arrest Antiarrhythmic Drug Trial. *Am Heart J.* Forthcoming 2014.
- Pulfrey S, Lahiffe B. Two fractures of the lower extremity not to miss in the emergency department. *Canadian Family Physician.* Oct 2013 (59) 1069-1072.
- Pickett T, Stenstrom R, Abu-Laban R. Relationship Between Mental Health Apprehensions by Police And Monthly Income Assistance (Welfare) Payments. *In Press*, *The Canadian Journal of Psychiatry.*
- Gupta S, Oosthuizen R, Pulfrey S. Treatment of acute migraine in the emergency department *Canadian Family Physician Journal.* January 2014. 47-49.
- Grunau BE, Li J, Yi TW, Stenstrom R, Grafstein E, Wiens MO, Schellenberg RR, Scheuermeyer FX. The Incidence of Clinically Important Biphasic Reactions in Emergency Department Patients with Allergic Reactions or Anaphylaxis. *Ann Emerg Med.* Forthcoming 2014;pii: S0196-0644(13)01536-9. DOI: 10.1016/j.annemergmed.2013.10.017

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Wilmer A, Lloyd-Smith E, Romney MG, Champagne S, Wong T, Zhang W, Stenstrom R, Hull MW. Reduction in community-onset methicillin-resistant *Staphylococcus aureus* rates in an urban Canadian hospital setting. *Epidemiol Infect*. 2014 March;142(3):463-467. DOI: 10.1017/S0950268813001568

Brunner N, Scheuermeyer F, Grafstein E, Ramanathan K. Outcomes of non-ACS patients discharged from the emergency department with troponin positivity. *CJEM*. 2014 Jan;16(1):1-11.

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Meaney PA, Bobrow BJ, Mancini ME, Christenson J, de Caen AR, Bhanji F, Abella BS, Kleinman ME, Edelson DP, Berg RA, Aufderheide TP, Menon V, Leary M; Quality Summit Investigators; the American Heart Association Emergency Cardiovascular Care Committee; the Council on Cardiopulmonary, Critical Care, Perioperative and Resuscitation. CPR Quality: Improving Cardiac Resuscitation Outcomes Both Inside and Outside the Hospital: A Consensus Statement. *Circulation*. 2013 July;128:417-435. Epub 2013 June 25. DOI: 10.1161/CIR.0b013e31829d8654

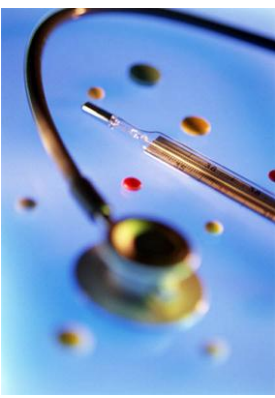
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Scheuermeyer FX, Grafstein E, Wong H, Yu E, Boychuk B, Innes G, Gin K, Christenson J. Development and validation of a prediction rule for early discharge of low-risk emergency department patients with potential ischemic chest pain *CJEM* Volume 16, Number 2, March 2014.



Ongoing clinical studies

Study Title	INVESTIGATORS	Which Patients?
ULTRASOUND ASSISTED DISTAL RADIUS FRACTURE REDUCTION	Dr A Skinner	Distal radius fractures requiring reduction (if you are trained in US guided fracture reduction)
A multi-center randomized cross over trial of electrical or medical cardioversion first, for atrial fibrillation.	Dr. Frank Scheuermeyer 778 899 3502 <i>On hold until mid July</i>	Recent-onset (within 48 hours) Age 18 - 75 years CHADS 0 / CHADS 1 No acute issues (CHF, etc.) Not Pregnant or nursing No acute substance intoxication / withdrawal Not Allergic to procainamide/propofol Not in study previously
Resuscitation Outcomes Consortium (ROC)	Dr. Jim Christenson	
A Randomised, Double-Blind, Multi-Center Study to Evaluate the Efficacy and Safety of Oral Solithromycin (CEM-101) Compared to Oral Moxifloxacin in the Treatment of Adult Patients with Community-Acquired Bacterial Pneumonia	Dr R Stenstrom	Any patient with a documented pneumonia on XR, who you would consider putting on oral moxifloxacin. Call the research office at 604-806-8086 or 604-716-4213
Community associated MRSA Prevalence in the ED	Dr R Stenstrom	Any SSTI patient who you do a wound swab on
A randomized controlled trial of oral versus intravenous antibiotics or skin and soft tissue infections	Drs Stenstrom, Rich, Marsden, Ghag, Lee Starting soon!	Any patient with a skin and soft tissue infection in whom you are considering IV antibiotics for
Management of VTE in the Emergency Department: Opportunities for Improvement	Dr Devin Harris	VTE Patients (PE/DVT)

Teck St Paul's Emergency Department Innovation Fund



It has been one year since our generously donated funding from Teck was implemented.

The funded researchers and their projects are listed below.

INVESTIGATOR	PROJECT
Dr Kira Rich	HIV ROUTINE SCREENING IN THE EMERGENCY DEPARTMENT
Dr Brian Grunau	EMERGENCY DEPARTMENT (ED) ANAPHYLAXIS; CARDIAC ARREST AND POST CARDIAC ARREST CARE, INCLUDING THERAPEUTIC HYPOTHERMIA
Dr Andrew Kestler	GEMI: GLOBAL EMERGENCY MEDICINE INITIATIVE TECK INNOVATION FUND PROJECT
Drs Andrew Skinner and Jonathan Theoret	SAINT-PAUL'S HOSPITAL SONOGRAPHY SUBSPECIALTY FELLOWSHIP TECK INNOVATION FUND PROJECT
Dr Shannon O'Donnell	HIV POST-EXPOSURE PROPHYLAXIS IN THE EMERGENCY DEPARTMENT TECK INNOVATION FUND PROJECT



Grant Funding

INVESTIGATORS	PROJECT	Amount/Funder
Dr Jim Christenson	Resuscitation Outcomes Consortium	\$929,939/year NHLBI, NINDS, CIHR, Heart and Stroke Foundation of Canada, Defense Canada BC
Drs. Harris, Kalla, Dewitt, Scheuermeyer, Stenstrom, Grafstein, Poureslami, Marsden	Implementation and Evaluation of an Emergency Department Atrial Fibrillation Pathway	\$40,000 Pfizer Canada
Drs. Penn, Borchers, Coutts, Harris , Balshaw, Lau, McManus, Saly, Arthur	Reducing Stroke Burden With Hospital-Ready Biomarker Test for Rapid TIA Triage	\$9,700,000 over 5 yrs Genome Canada
Dr Devin Harris	B.C. Stroke Unit Collaborative	\$51,800 General Practice Services Committee (GPSC), BCMA
Drs Stenstrom, Rich, Marsden, Ghag, Lee	A randomized controlled trial of oral versus intravenous antibiotics or skin and soft tissue infections	\$10,000 PHC Antibiotic Stewardship Committee