



March, 2018

Curriculum Vitae

Eddy S. Lang MDCM CCFP(EM) CSPQ

Home Address: 2015 42 Ave SW
Calgary, Alberta
T2T 2M8

Work Address: RGH, Holy Cross Ambulatory Care Centre
7007 – 14th Street SW, room 5A105
Calgary, AB, T2V 1P0

Telephone: Home: (403) 460-8070
Office: (403) 943-7573
Fax: (403) 943-7967

Pager: Calgary Health Region: 10211
E-mail: eddy.lang@albertahealthservices.ca

Spouse's Name Nathalie Lussier

Children Rebecca
Benjamin
Naomie
Sarah-Michelle



| |
|-----------|
| Licensure |
|-----------|

| | |
|-------|---|
| 2010: | College of Physicians and Surgeons of Alberta |
| 2000: | Certificat de Spécialisation en Médecine d'Urgence (CSPQ) |
| 1992: | Collège des Médecins du Québec (92 – 97) |

| |
|------------------------------|
| Appointments & Clinical work |
|------------------------------|

| | |
|------------------------|--|
| July 2016 - Present: | Professor, Emergency Medicine, Cumming School of Medicine, University of Calgary. AB. Canada |
| 2016 - 2018: | Faculty Tenure and Promotion Committee (FTPC) member, Cumming School of Medicine, University of Calgary. AB. Canada |
| 2014 - 2016: | Associate Professor, Emergency Medicine, Cumming School of Medicine, University of Calgary. AB. Canada |
| July 2014- Present | Clinical and Academic Department Head for Emergency Medicine. Cumming School of Medicine. Alberta Health Services, Calgary Zone |
| July 2013 – July 2014: | Acting Zone Clinical Department Head and Interim faculty Department Head. Department of Emergency Medicine. |
| March 2010: | Associate Professor, University of Calgary, Division of Emergency Medicine, Department of Family Medicine. |
| November 2009: | Geographic Full Time. Attending Staff, Emergency Physician. Foothills Medical Center, Peter Lougheed Center, Rockyview General Hospital. |
| October 2009: | Senior Researcher - Associate Professor, Division of Emergency Medicine University of Calgary. |
| July 1993 - 2009: | Attending Staff, Geographic full time, Emergency Department, Sir Mortimer B. Davis-Jewish General Hospital, Assistant Professor, McGill University (Application for academic promotion to associate professor approved in 2009) |
| 2009: | Team coach, manager and athlete (Masters swimming). Canadian Delegation Maccabi Games 2009, Israel |
| 2009: | Team physician, Canadian Delegation, Maccabiah Games 2009, Israel |
| 2008, 2009: | On-site physician Camp Massad, Ste. Agathe Quebec |
| 1992 – 1993: | Pre-hospital Emergency Medicine Urgences Santé Attending Staff |

- 1992 – 1993: Montreal Chest Hospital
ICU and ward coverage – part time
- 1992 – 1993: Mount Sinai Hospital
Ward Coverage – part time

| |
|---------------------------|
| Certification / Education |
|---------------------------|

- 2014: Alberta Health Services Executive Education Program. University of Alberta and Alberta School of Business, Executive Education.
- 2009: Medical license, College of Physicians and Surgeons of Alberta.
- 2000: Specialty Certification in Emergency Medicine (CSPQ)
- 1994: Instructor: Advanced Cardiac Life Support
- 1993: Emergency Medicine Proficiency Certificate: CCFP (EM)
- 1993: Advanced Cardiac Life Support
- 1992: College of Family Physicians of Canada (# 206561)
- 1992: Attestation de Connaissance de Français (14 – 2494)
- 1992: Pediatric Advanced Life Support
- 1991: Neonatal Advanced Life Support
- 1988: Advanced Trauma Life Support

| |
|-----------------|
| Awards / Honors |
|-----------------|

- 2018 Faculty Appreciation Honour Roll- Dhole Award- Class of 2019 for outstanding teaching
- 2017 CAEP 2017 CanVECTOR Research Abstract Award, for the abstract titled “Substantial variation in CTPE ordering patterns and diagnostic yield in a large group of specialty-trained emergency physicians.”
- 2016 Honour Roll - Cumming School of Medicine outstanding faculty recognition
- 2014 AIHS Studentship Award for Drayton Trumble, first year medical student. University of Alberta, Provincial, Research
- 2013: Grant Innes Research Paper and Presentation Award for the article “Identification of emergency-sensitive conditions for the calculation of an emergency care–specific in-hospital standardized mortality ratio”.
- 2013: Hellbender Honour Roll, University of Calgary
- 2012: American Medical Writers Award. Special Recognition for the Royal College of Canada Research Guide
- 2009 - 2011: “Senior Reviewer” for Annals of Emergency Medicine
- 2009: Fellow of the New York Academy of Medicine

- 2009 - 2010: Named "Outstanding Reviewer" for Academic Emergency Medicine
- 2008: Second place prize: AMUQ research competition. Overcrowding and quality of care indices for acute asthma.
- 2008: Alberta Heritage Foundation Medical Research Visiting Lecture Award.
- 2008 - 2009: Top 50 reviewers Annals of Emergency Medicine
- 2006: Winning proposal for Academic Emergency Medicine Consensus Conference for 2007 on Knowledge Translation.
- 2006: McGill Faculty Honor List for Educational Excellence
- 2006: Named "Outstanding Reviewer" for Academic Emergency Medicine
- 2006: Best "Innovation in Emergency Medical Education" exhibit SAEM
- 2004: Winner of the Canadian Association of Emergency Physicians Teacher of the Year Award.
- 2004: Semi-finalist, annual CPC (Clinical Pathological Conference) competition. Society of Academic Emergency Medicine. Orlando, May 2004 (preliminaries) San Francisco, October 2004 (finals).
- 2002: 2nd place. Research Competition, Association des Médecins Urgentologues de Québec meeting, Montreal.
- 2001: 1st place. Resident Research Competition (Dr. Eleena Pearson), McGill University Royal College Emergency Medicine Residency Training Program: An Assessment of the Effectiveness of a Pneumococcal and Influenza Vaccination Program in a Canadian Emergency Department.
- 2000: Teacher of the year. McGill University Royal College Emergency Medicine Residency Training Program.
- 2000: 3rd place. Resident Research Competition (Dr. Christine Meyers), McGill University Royal College Emergency Medicine Residency Training Program: A meta-analysis of helical CT in the evaluation of emergency department patients presenting with flank pain.

| |
|----------------------------------|
| Medical Education: Undergraduate |
|----------------------------------|

- 2015: Classroom Teaching, 440, UME Lectures, Prognosis and CPG modules, exam prep and planning committee
- 2012: Lecturer and module developer for Applied Evidence Based Medicine: Med 440
- 2012: Medical School Lecture and Module development: Clinical Practice Guidelines
- 2012: Supervisor for Med 6 Med 440 students.

- 2011: Course development committee: Applied Evidence Based Medicine: Med 440 – University of Calgary.
- 2011: Small group leader: Applied Evidence Based Medicine: Med 440 – University of Calgary.
- 2009: Unit 7 lecture (Infection and Immunology): Topic: Sepsis and Septic Shock. McGill University
- 2004 - 2009: Course Director, Introduction to Evidence-Based Medicine: INDS 306 Critical Appraisal and Informed Medical Practice (ICM – Second year medical students).
<https://home.mcgill.ca/lsl/collections/links/course/ebm/>
<http://www.health.library.mcgill.ca/ebm/>
- 2003 – 2008.: Small group leader: Unit 8 - Introduction to Clinical Epidemiology and Biostatistics.
- 2006 – 2008: Seminar leader “Back to Basics” lecture series. The Best of the Medical Internet for Budding Emergency Physicians. Internet Workshop, Health Sciences Library
- 2005 - 2009: Osler Fellow. Physicianship program McGill University.
- 2004 - 2006: Small group leader: Introduction to Medical Ethics. (ICM – Second year medical students).
- 2000 - 2003: Small group leader: Evidence-Based Emergency Medicine. (Introduction to Clinical Medicine Course - third year medical students).
- 1999: Student supervisor for “McGill University Medical Informatics Project”. Patient simulator for status asthmaticus.
<http://sprojects.mmip.mcgill.ca/er/>
- 1998: “Communication in Clinical Medicine”. Group leader for fourth year medical students.
- 1995: “Introduction to the Practice of Medicine”. Group leader for first and second year medical students.
- 1995 - 1998: Faculty Lecturer: Selected Topics in Medical Science (STIMS), fourth year medical Oncological Emergencies;
 - Best of the Internet for Medical Students;
 - EBM Seminars.

| |
|----------------------------------|
| Medical Education : Postgraduate |
|----------------------------------|

- 2011 - 2012: Resident Research Course 2011. PGY2 residents in adult and PEDs EM.
- 2011 - 2012: Faculty mentor / supervisor: Calgary Emergency Medicine Journal Club
- 2011: September. U of C Emergency Medicine Grand Rounds. Finding Your Academic MOJO: An overview of the Calgary / AHS EM Research Program
- 2009: Introduction to the Clinical Pathological Conference competition in Emergency Medicine. January 2009, Royal College Emergency Medicine Rounds.

- 2007: Intensive EBM workshop for McGill residents in oncology and radiation oncology.
- 2005: Professionalism Seminar tutor. McGill University, November.
- 2002 - 2007: Site coordinator. SMBD-Jewish General Hospital. Royal College Emergency Medicine Residency Training Program.
- 2002 - 2007: Selection Committee Royal College Emergency Medicine Program McGill University.
- 2003 - 2005: Judge. Resident Research Day. Royal College Emergency Medicine Program McGill University.
- 1999 – 2009: Resident Supervisor for the joint FRCP and CCFP (EM) Journal Club Program. Initiator and coordinator of the new evidence-based curriculum for Journal Club.
- 1998 - 2004: Resident supervisor and mentor for two residents of the McGill Royal College Emergency Medicine Program.
- 1997: Examiner. CCFP eligibility exam, Montreal, Quebec.
- 1995: Individualized tutorial program for resident(s) requiring additional skill/knowledge acquisition.

| |
|---|
| Medical Education: Continuing Medical Education |
|---|

- 2017
- 2012: Planning committee, track coordinator and lecturer at the E-GAPPS conference sponsored by the Guidelines International Network North America. New York Academy of Medicine, New York NY, December 10 and 11, 2012.
<http://www.nyam.org/events/2012/evidence-based-guidelines-conference.html>
- 2007-2011: Creator and lead developer Knowledge Translation track at the American College of Emergency Physician Scientific Assembly. Topics covered: Therapeutic Hypothermia in Cardiac Arrest, Primary PCI for STEMI care, Sepsis, Emergency crowding, Reducing CT utilization in Suspected PE. AHRQ / NIH funding.
- 2009 - 2011: Faculty Coordinator for the TEACH initiative (Teaching Evidence Assimilation for Collaborative Healthcare) New York Academy of Medicine; GRADE and Knowledge Translation tracks.
- 2008 – 2009: Lecturer in the Best Evidence in Emergency Medicine CME series, Silver Star, British Columbia. (evaluations available)
- 2003 - 2009: Lecturer in the Review of the Medical Literature Course offered by the Association de Medecins d’Urgence de Quebec and Emergency Medicine Abstracts. Mont Sainte-Anne (2003, 2005), Orford (2007), Mont Tremblant (2009). Topics: Venous Thromboembolism, Emergency Cardiology.

- 2004 – 2006: Organizer, bilingual Evidence-Based Medicine Workshops offered under the auspices of the SMBD Jewish General Hospital emergency department, and AMUQ, Montreal, Ste-Adele, Mont Tremblant.
- 2007 – 2009: Faculty in Workshop for Flow and Efficiency offered four times in this time window in Calgary and Montreal
- 2004- 2009: Organizer, winning didactic proposal submissions for the Society of Academic Emergency Medicine annual scientific meetings. Orlando (2004), New York (2005), San Francisco (2006) Chicago (2007) Washington (2008). Topics: Improving Journal Club, Knowledge Translation, Mastering Online Resources, Guideline Initiative in Pre-Hospital Care in the USA. (evaluations available)
- 2008: McGill CME Executive Committee
- 2008: Lecturer in McGill Rural Videoconference Series
- 2007-2008: Organizer of Knowledge Translation Workshops at the American College of Emergency Physicians annual scientific meeting.
- 2005-2006: Lecturer in Thursday Evening Lecture Series
- 2003 - 2007: McGill Postgraduate Web CME committee

| |
|----------------------|
| Research Supervision |
|----------------------|

1. Paul. A. Alexander (2015)
 Medical student-Postgraduate-McMaster University
 Ph. D Thesis- Clinical Practice and Public Health Guidelines: The Making of Appropriate Strong Recommendations when the Confidence in Effect Estimates is Low or Very Low.
 Summative Assessment-external reviewer
2. Christopher Lipp (2011-2012)
 Medical student – University of Calgary
 Development of an Evidence Based Order Set for Acute Analgesia in the Emergency Department; a GRADE based approach.
 In-press publication: A GRADE based evaluation of Analgesia for the Emergency Department – Critical Care – publication March 2013
3. Raj Dhaliwal (2011 – 2012)
 Medical student – University of Calgary
 Development of an Evidence Based Order Set for Acute Anti-emetics in the Emergency Department; a GRADE based approach.
 In-press publication: A GRADE based evaluation of Analgesia for the Emergency Department – Critical Care – publication March 2013.
4. Dr. Simon Berthelot (2011)
 MSc Candidate – Community Health Sciences, University of Calgary
 Development of an In-Hospital Standardized Mortality Ratio for Emergency Department Sensitive Conditions
 Co-supervisor: Dr. Tom Stelfox
5. Katherine Murray
 Medical student – University of Calgary

Rugby related injuries presenting for urgent and emergent care in Calgary
Co-supervisors: Drs. Brent Hagel and Brain Rowe

6. Xin Feng (2011)
Medical student – University of Calgary
Analysis of the Efficacy and Epidemiology of Syncope Treatments and Outcomes in
Albertan Emergency Departments
Co-supervisor: Dr. Robert Sheldon
7. Brandon Hone (2011)
Medical student – University of Alberta
Comparison of Outcomes in Atrial Fibrillation Patients Referred to Specialized Clinics and
Routine Care from an Emergency Presentation
Co-supervisors: Drs. Russell Quinn, Anne Gillis
8. Michael Prystajecy (2011)
Medical student – University of Calgary
Emergency Room visits and Palliative Care Services: the Canary in the Coal Mine?
Co-supervisor: Dr. Bejoy Thomas
9. Puneet Kapur (2011)
Medical student – University of Calgary Health Region
A Comparison of Admission Rates from the Emergency Department for Acute Atrial
Fibrillation in the United States and Canada.
Med 440 Project
10. Robert Brown (2011)
Medical student – University of Calgary
The of parenteral or inhaled Magnesium in Acute COPD exacerbations: A Systematic
Review
Med 440 Project
11. Justin Wong (2011)
Medical student – University of Calgary
Development and Impact of a Delirium Order Set for the Emergency Department.
12. Fareen Zaver
International Medical Graduate (2009 – 2010)
Matching Capacity to Demand: A Regional Dashboard Reduces Ambulance Avoidance and
Improves Accessibility of Receiving Hospitals. Published in Academic Emergency
Medicine 2010.
13. Marshall Ross (2010)
Medical student – University of Calgary
Systematic Review of ED Physician Performed Ultrasound for Cholelithiasis. Published
2011, Academic EM.
14. Patricia Lee (2010)
Medical student – University of Alberta
A Comprehensive Assessment of Consultation Impact on Emergency Department
Crowding.
Study completed – manuscript development
15. Daniela Migliarese
Medical Student – University of Alberta
AIHS Studentship Recipient

Evaluation of outcomes in Emergency Department in patients with long bone fractures receiving analgesics after discharge

Scholarly Project Supervision

1. Shoghi Nikoo (2015-2016)
University of Calgary Medical Student
Partnership for Research and Innovation in the Health System (PRIHS) Project
2. Maude Latulippe (2009-2010)
CCFP (EM) Resident
Use of GP IIb/IIIa Inhibitors in Acute Coronary Syndromes - published
3. Erik Saude
FRCPC Resident
Misoprostol use in Threatened Miscarriage - published
4. Jason Mitchell
FRCPC Resident
Thrombolytic Therapy in Acute Stroke – published.
5. Christopher Hall
Junior Faculty
Use of MRI in Acute Stroke - published

McGill

1. Dr. Raghu Venugopal
Research Supervisor
Impact of a Flow and Efficiency Workshop at both the Postgraduate and CME levels.
Completed project with published results.
2. Dr. Abdulaziz Al-Mulaik
Research Supervisor
Knowledge Translation Applied to Improved Utilization of Cardiac Monitors in the
Emergency Department.
Ongoing.
3. Dr. Sara Kazzam
Journal Club Rotation
Octreotide in Sulfonylurea Toxicity
4. Dr. Robin Cardamore
Journal Club Rotation
Ultrasound in Pediatric blunt Trauma
5. Dr. Aref Malabray
Journal Club rotation
Can CT scan and Lumbar puncture exclude subarachnoid hemorrhage?
6. Dr. Tim Heeley-Ray
Journal Club rotation
Synthesis of Prediction Rules for Syncope

7. Dr. Julie Brahm
Journal Club Rotation
Ondansteron in Pediatric Gastroenteritis
8. Dr. Mohamed Azzam
Journal Club Rotation
Termination of Resuscitation in Out of Hospital Cardiac Arrest
9. Dr. Tim Josephson
A Comprehensive Evaluation of Patient
Perception and Satisfaction in an ED-based
Outpatient Treatment Protocol for Venous Thromboembolism.
10. Dr. Marwan Al-Raisi
Clinical Evidence Chapter: VT/VF Associated Cardiac Arrest.
11. Dr. Hugo Viladevall
Impact of CHF Clinic on ED Visits in a Tertiary Care Center.
12. Dr. Reuben Strayer
Rational Clinical Examination Series
Published submission: Acute Knee Injuries.
13. Dr. Naveed Alam
Evaluation of a dedicated teaching shift involving direct bedside observation of trainees by
attending staff.

Thesis external reader:

1. Ph.D. Thesis – Paul Elias Alexander. Clinical Practice and Public Health Guidelines: The Making of Appropriate Strong Recommendations when the Confidence in Effect Estimates is Low or Very Low. McMaster University, Jan 2015.

| |
|---|
| Medical Education – Invited Presentations - Conferences |
|---|

- | | |
|------------|---|
| 22/09/2017 | Keynote Lecture - Where's the Evidence for Evidence-Based Medicine? The Precarious Path from Research to Practice. Myanmar-16 th ASEAN Pediatric Federation Congress 2017 |
| 21/09/2017 | Workshop moderator- Making the GRADE (Grading of Recommendations Assessment, Development and Evaluation) - A practical workshop in evidence synthesis and making recommendations for any setting- Yangon children hospital, Myanmar-16 th ASEAN Pediatric Federation Congress 2017 |
| 03/06/2015 | Accredited Symposium at CAEP 2015: "Provocative questions in the emergency care of stroke prevention in atrial fibrillation and anticoagulation.", research, national, invited speaker |
| 03/06/2015 | Presentation at CAEP 2015 entitled: "PE in the ED: Managing the spectrum from thrombocytopenia to sub-massive emboli" ., professional organization, national, invited speaker |

- 01/06/2015 Accredited Symposium at CAEP 2015: "From Challenging ECG Cases to Cutting Edge Therapies: What Emergency Physicians Need to Know about ACS in 2015", education, national, invited speaker
- 01/06/2015 Presentation at CAEP 2015 on Emergency Medicine administration and operational medicine: "Go Away!" Diversion Strategies and Triaging Away (Reducing ED Inflow), administration, national, invited speaker
- 27/05/2015 Presentation entitled: "Patient management in the world of oral anticoagulation" , education, faculty, keynote speaker
- 24/01/2015 A potpourri of cardiology cases. Oral presentation at the 31st Annual Emergency Medicine for rural hospitals conference, University of Calgary. Banff, AB. , education, regional, invited speaker
- 24/10/2014 Title: « Choisir avec soin ». Quelles sont les implications pour la médecine d'urgence ? Location: 31e Congrès scientifique de médecine d'urgence – AMUQ, Montreal, QC. , education, provincial, invited speaker
- Sep 2014 WHO Guideline Meeting -Paediatric Emergency Triage, Assessment and Treatment (ETAT), Geneva, Switzerland, September 30-October 02.
- May 2014 DS028: Beyond Google: Information Mastery at the Point of Care in the Era of Evidence Syntheses: an E-classroom Experience. USA, Dallas
- Dec 2012 Overview of GRADE methods and principles. Heart and Stroke Foundation of Canada, Toronto, Ontario.
- Dec 2012 Introduction to GRADE: Outcomes, framework and methods. ILCOR Neonatal Resuscitation Conference, Washington DC.
- Oct 2012 Transitioning to GRADE: ILCOR meeting involving all 6 resuscitation task forces: ALS, BLS, ACS, Neonatal/Peds, Education, Implementation, Teams
- Sept 2012 GRADE workshop. Ministry of Health Working Groups. World Bank Initiative, Astana Kazakhstan.
- June 2012 Coordinator and faculty in GRADE track. Putting Evidence into Practice, Edmonton, Alberta. http://www.pep.ualberta.ca/small_group.htm#GRADE
Evaluations available on request.
- Jan 2012 Adapting High Quality Clinical Practice Guidelines. Ministry of Health Working Groups. World Bank Initiative, Astana Kazakhstan.
- Nov 2011 Association des Medecins d'Urgence de Quebec. Two presentations. "New Guidelines for Anti-thrombotic and Thrombolytic Care" and "Pearls from the Recent Medical Literature"
- Oct 2011: Knowledge Translation Workshop. Emergency Department Heads Working Group. Morristown, New Jersey.
- Oct 2011 Faculty and moderator for three workshops at the American College of Emergency Physicians; 3 Knowledge Translation Workshops
1. Surviving Sepsis: Improving Care Through an Innovative Learning Workshop

2. ED Overcrowding: Overcoming Barriers and Improving Outcomes Through an Innovative Learning Workshop
3. Stop the Madness: An Innovative Learning Workshop To Reduce Unnecessary Radiation In Suspected Pulmonary Embolism.

- Sept 2011 Workshop leader: International Conference on Residency Education. Royal College of Physicians and Surgeons of Canada. Launch of the Resident Research Guide. September 2010 / 2011.
- Aug 2011: Knowledge Translation: Closing the Research to Practice Gap. Evidence Based Clinical Practice Workshop. Rio de Janeiro, Angra dos Reis, Brazil
- Aug 2009-12 Faculty and Knowledge Translation Track coordinator. Teaching Evidence Assimilation for Collaborative Health. New York Academy of Medicine. New York City.
- May 2011 Keynote Speaker: Canadian Health Libraries Association (CHLA) Annual Meeting. "Knowledge Translation and Patient Care" Calgary, Alberta, May 2011
- June 2011 Society of Academic Emergency Medicine. Harnessing the Power of the Internet for Bedside Teaching: A Hands on and Interactive Workshop. Boston.
- June 2011 Society of Academic Emergency Medicine. Panelist for didactic session: The Role of Research in Practice Change.
- 2010 Plenary presentation: Canadian Association of Medical Biochemists. Evidence Based Medicine: Friend or Foe of Improving Patient Care. Montreal, Quebec. October 2010.
- 2009 Knowledge Translation Workshop. Code STEMI: Reducing Door to Balloon Times in AMI – Regionalization and Pre-hospital Triage. ACEP Scientific Assembly, Boston October
- 2009 Knowledge Translation Workshop. Implementing an Over-Capacity Protocol in your Hospital. ACEP Scientific Assembly, Boston October
- 2009 Knowledge Translation Workshop. Implementing Sepsis Protocols in your Emergency Department ACEP Scientific Assembly, Boston October
- 2009 Evidence Based Clinical Practice Workshop. McMaster University large group plenary didactic, Identifying and Closing Research to Practice Gaps.
- 2009 Faculty: Flowthrough and Efficiency Workshop. Canadian Association of Emergency Physicians, Calgary 2009
- 2009 SAEM Annual Scientific Meeting. Harnessing the Power of the Medical Internet.
- 2009 SAEM Annual Scientific Meeting. From Evidence to EMS Practice: Building the National Model
- 2009 CME conference organized by Sacré-Coeur Hospital in Montreal. Diagnostic strategies in venous thromboembolism. Top 10 websites for Emergency Medicine
- 2009 Confirmed speaker. Best Evidence in Emergency Medicine. Silver Star Ski Resort, British Columbia January 2009

- 2009 Invited speaker. Revue de littérature en médecine d'urgence. Association des Medecins D'urgence de Quebec. Mont Tremblant, Quebec. Feb 2009
- 2009 Invited faculty, Medicina Baseada em Evidências workshop, Rio de Janeiro, Brazil, March 2009.
- 2009 Invited faculty, Workflow Efficiency Workshop, Canadian Association of Emergency Physicians Meeting, Calgary, Alberta, June 2009
- 2009 Invited faculty, plenary speaker, McMaster University Evidence Based Clinical Practice Workshop
- 2008 Practical Course in Emergency Medicine, McGill. Faculty in Flow / Efficiency Workshop, Station: The Persuasive Consultation
- 2008 State of the Art Evidence Based Emergency Medicine. International EM Congress. Cancun, Mexico, November, 2008.
- 2008 Invited, Knowledge Translation in Emergency Medicine, Delaware Valley American Academy of Emergency Medicine Meeting; Philadelphia, November 2008.
- 2008 Invited, Improving an Evidence-Based Medicine Journal Club; Dalhousie University Emergency Medicine Program, Halifax, Nova Scotia.
- 2008 Top 10 Articles to Guide Emergency Medicine Practice. Quebec Association of Emergency Physicians Annual Scientific Meeting, November 5, 2008, Quebec City.
- 2008 Opportunities and State of the Art in Knowledge Translation Research. Quebec Association of Emergency Physicians Annual Scientific Meeting, November 5, 2008, Quebec City.
- 2008 Developing a Successful Research Protocol: Insight from the CAEP Research Chair. Joint University of Montreal and Pediatric Emergency Medicine Grand Rounds
- 2008 Chair for workshop entitled "Code STEMI: Minimizing Door to Balloon Times Through a Knowledge Translation Workshop" featuring Peter C. Wyer, MD, FACEP; David J. Magid, MD FACEP; Ivan C. Rokos, MD, FACEP, Henry H. Ting, MD, MBA, FACC, Timothy D. Henry MD, FACC. ACEP Annual Scientific Meeting in Chicago, October 2008.
- 2008 Evidence-Based Medicine: Exploding Old Myths and Creating New Ones. Plenary, ACEP Annual Scientific Meeting in Chicago, October 2008.
- 2008 Research methods in Knowledge Translation. McGill Epidemiology Seminar, October 8, 2008
- 2008 Knowledge Translation: A New Paradigm? Emergency Medicine Grand Rounds, Columbia University, September 3rd, 2008
- 2008 Plenary and moderator. FICEMS Conference on Practice Guidelines in EMS. Washington DC. September 4th and 5th, 2008.
- 2008 New Frontiers in EBM. New York Academy of Medicine EBM Workshop. August, 2008, New York City

- 2008 Educational advances for improving flow and efficiency in the Emergency Department: Insight from a multidimensional workshop. Presented with Raghu Venugopal. CAEP 2008, Ottawa.
- 2008 Speaker and panelist: Knowledge Translation one Year Later. Early initiatives and controversies arising from the 2007 Academic Emergency Medicine Consensus Conference on Knowledge Translation. Panel featuring Dan Mayer, Michael Brown, Nathan Kupperman and Robert Wears. SAEM, May, 2006
- 2008 Knowledge Translation in Emergency Medicine. Pediatric EM Fellows Conference, Marina del Rey, California
- 2008 Closing the gap between evidence and practice. Canadian Association of Drugs and Technology in Health, Edmonton Alberta.
- 2008 Alberta Foundation for Health and Medical Research, visiting lecturer award
- 2008 Best Evidence Emergency Medicine. Silver Star Resort, January, 2008
- 2008 TIAs, closing the research to practice gap. University of Toronto CME course for EM. Whistler BC.
- 2007 Capacity Management and Physician-Directed Streaming. Mediterranean Emergency Medicine Conference IV. Co-presented with Dr. David Eitel Sorrento, Italy; September 17th, 2007
- 2007 Knowledge Translation in International Emergency Medicine. Mediterranean Emergency Medicine Conference IV. Sorrento, Italy; September 17th, 2007
- 2007 Visiting Professor Department of Emergency Medicine Grand Rounds. University of Ottawa. Knowledge Translation: Closing the Research to Practice Gap. March, 2007.
- 2007 "4 T's for Teachers: Teaching Skills, Technology, Time Management and Taking Care of Self". McGill University Faculty Development, May 2007.
- 2007 Evidence-Based Medicine Workshop for Oncologists from the Middle East. One day event held in Athens, Greece and sponsored by Eli Lilly
- 2007 Co-chair and co-ordinator of the Society of Academic Emergency Medicine's International Consensus Conference to be held on May 15th, 2007 in Chicago, USA. Consensus Conference theme: Knowledge Translation: Establishing a Research Agenda for Evidence Uptake in Emergency Medicine. Consensus Conference proceedings to be published in dedicated issue of Academic Emergency Medicine in November of 2007.
- 2006 Stratégies liées à l'application des connaissances (SLAC) : combler l'écart entre la recherche et la pratique. Workshop for the Association des Médecins Urgentologues de Quebec. October 26th and 27th, Quebec City
- 2006 The Best of the Medical Internet for Emergency Physicians; Workshop for the Family Medicine Forum 2006, Quebec City November 3, 2006.
- 2002 - 2006: "Evidence-Based Emergency Medicine Workshop". Guest faculty, **NYAM** (New York Academy of Medicine), New York, NY, April 2002, April 2003, March 2004, March 2005, April 2006 and April 2007.

- 2000- 2006 Humanization of Care Medical Grand Rounds – Coordinator. Inaugural event for Humanization of Care Week JGH.
- 2006 “Evidence-Based Medicine – why all the fuss”. International Conference of Emergency Medicine / Canadian Association of Emergency Physicians. Halifax, June 7th.
- 2005 L'Etude PEDS (Pulmonary Embolus Diagnosis Study): Résultats d'une Essai Randomisée Contrôlée comparant la Scintigraphie au Scan Hélicoïdale comme Stratégie du Départ dans l'évaluation de L'Embolie Pulmonaire Suspecte. Présentation Perfectionnement Professionnel permanent (PPP) de la Section de médecine d'urgence Université Laval. Quebec City, December 2005.
- 2005 Coordinator. JGH Day Royal College Emergency Medicine Program Grand Rounds. Cutting Edge and High Technology Advances in Medical Education, November.
- 2005 Putting Evidence into Practice. Guest faculty. University of Alberta Evidence Based Medicine Workshop, November 2005 and November 2006.
- 2005 “Evidence-Based Emergency Medicine”. Course Director and lecturer, **Joint course offered by the SMBD-Jewish General Hospital, AMUQ, McGill University**, Mont Tremblant, PQ, November 2005.
- 2005 “Knowledge Translation and Emergency Medicine: Bridging the Gap from Evidence to Clinical Practice”. SAEM, New York, 2005. Shared session with Dr. Jeremy Grimshaw and Michael Brown.
<http://www.saem.org/meetings/05didac.htm#gap>
- 2005 “Referral and Follow-up of Patients Requiring Emergency Care” Thursday Evening Lecture Series. McGill University. April 2005.
<http://ww2.medicine.mcgill.ca/cme/php/hom.php?id=274>
- 2005 “Making Evidence-Based Medicine Work for You”. Thursday Evening Lecture Series. McGill University. November 2005.
<http://ww2.medicine.mcgill.ca/cme/php/hom.php?id=325>
- 2005 “Translating Research Into Clinical Practice In The Emergency Department.” Presented as a session at the International Interdisciplinary Conference on Emergencies (2005 IICE). June 2005, Montreal, Quebec.
Presenter: **Lang E.**
- 2005 EBM In Questions. Presented as a session at the International Interdisciplinary Conference on Emergencies (2005 IICE). June 2005, Montreal, Quebec.
Presenter: **Lang E.**
- 2000 – 2004: Faculty, Evidence-Based Clinical Practice Workshop. McMaster University, Hamilton, Ontario. Emergency Medicine and Internal Medicine Tracks, June.*
- 2004 Session leader: Improving Journal Club through Structured Critical Appraisal, Innovative Educational Formats and Bedside Application. SAEM, Orlando, 2004.
<http://www.saem.org/meetings/04didac.htm#club>

- 2004 Coordinator. JGH Day Royal College Emergency Medicine Program Grand Rounds. Advances in Venous Thromboembolism, April
- 2004 Geriatric Trauma: They're not just older adults. CAEP/AMUQ joint conference, Montreal, April.
- 2004 L'hypothermie post-ACR: Oui ou Non? CAEP/AMUQ joint conference, Montreal, April.
- 2004 Evidence-Based Emergency Respiratory Care: Bridging the Gap from Evidence to Practice. McGill Health Challenge 2004. Joint conference held by the Faculties of Medicine and Management, April 2004.
- 2003 - 2004 "The Best of the Medical Internet for Emergency Physicians". Workshop given with Dr. Joel Turner in French at the Association des Médecins D'Urgence de Québec meeting, 2003 and in English at "A Practical Course in Emergency Medicine" – McGill Postgraduate Education Committee and the Royal College of Emergency Medicine weekly rounds series.
- 2003 "Evidence-Based Emergency Medicine". Course Director and lecturer, **Joint course offered by the SMBD-Jewish General Hospital, AMUQ, McGill University**, Mont Tremblant, Québec, May 2003.
- 2003 "Evidence-Based Emergency Medicine Workshop". Guest faculty, **SAEM** (Society of Academic Emergency Medicine), Boston, Massachusetts, May.
- 2003 Emergency Medicine Abstracts Conference – Mont-Sainte-Anne. Expertise: Venous Thromboembolism
- 2002: "Evidence-Based Emergency Medicine". Course Director and lecturer, **Joint course offered by the SMBD-Jewish General Hospital, AMUQ, McGill University**, Montreal, Québec, February 2002.
- 2002: "Evidence-Based Emergency Medicine Workshop". Guest faculty, **SAEM** (Society of Academic Emergency Medicine), St. Louis, Missouri, May.
- 2001: "Evidence-Based Emergency Medicine Workshop". Guest faculty, **SAEM** (Society of Academic Emergency Medicine), Atlanta, Georgia, May 2001.
- 2001: "Surfing the Medical Internet: A guide for patients and their families". Humanization of Care Program; Community Lecture, SMBD-Jewish General Hospital.
- 2001: "CATS and Kittens: Tools for bringing evidence to the bedside" Presented at the Royal College of Emergency Medicine Resident Rounds, SMBD-Jewish General Hospital.
- 2001: Journées d'initiation en médecine basée sur les évidences et en recherche. Équipe de recherche en urgence - cité de la santé de laval. Jeudi et vendredi, 22 & 23 février. Presentations and small group tutorials.
- 2000: "Evidence-Based Emergency Medicine". 17ième Congrès Scientifique Annuel. Association des Médecins d'Urgence de Québec. Palais de Congrès. Novembre.
- 2000: "Thrombolyse vs. Angioplastie". 17ième Congrès Scientifique Annuel. Association des Médecins d'Urgence de Québec. Palais de Congrès. Novembre.

2000: "Implementation of a TPA protocol for Stroke". 17ième Congrès Scientifique Annuel. Association des Médecins d'Urgence de Québec. Palais de Congrès. Novembre.

Clinical Teaching

2009 – 2011: Clinical bedside supervision Emergency Department PLC, FMC, RGH. Calgary Health region

1993 – 2009: Clinical supervision and teaching at the SMBD Jewish General Hospital Emergency Department

2005- 2009: Consistently in the top 3 (or highest scoring) of faculty based on feedback from trainees on rotation in our emergency department

Journals

2018 Reviewer of the Journal of Clinical Epidemiology (JCE)

2018 Reviewer of PLOS Journal

2018 Reviewer of Emergency Medicine Journal

2017 Reviewer of the Journal Healthcare Policy Journal

2017 Reviewer of BMJ Journals

2016: Member of Editorial Advisory Board for Eurasian Journal of Emergency Medicine (EAJEM)

2015: Reviewer for the Journal of Hospital Medicine

2015: Reviewer for the Systematic Reviews Journal

2013: Senior Associate Editor, Canadian Journal of Emergency Medicine

2012: American College of Physicians Journal Club. Associate Editor

2012: Associate Editor: American College of Physicians Journal Club / Annals of Internal Medicine

2011 - present: Editorial board: International Journal of Emergency Medicine

2011: Reviewer: Journal of Chronic Obstructive Pulmonary Disease

2011: Ad Hoc reviewer: International Journal of Emergency Medicine

2009: Ad Hoc reviewer Academic Pediatrics

2009: Ad Hoc reviewer European Journal of Emergency Medicine

2008: Ad Hoc reviewer for Healthcare Policy / Politiques de Santé, Longwood Publishing

2008: Ad Hoc reviewer Critical Care

2007 - present Healthwatch. EBM for the Public. Bi-monthly column for the Montreal Gazette, a division of CanWest Global.
<http://www.canada.com/montrealgazette/features/healthandfitness/healthwatch.html>

2007 - 2011: Associate Editor and Editorial Board member for Academic Emergency Medicine

2007 - 2008: Ad hoc reviewer Journal of Quality and Safety in Healthcare (2 manuscripts)

2005 - 2009: Associate editor and editorial board member of the Canadian Journal of Emergency Medicine Journal Club/EBM section.

2005 - 2009: Ad hoc manuscript reviewer for the peer-reviewed journal: Canadian Medical Association Journal (CMAJ).

2004 - 2008: Associate Editor: Primary Care Perspectives in Cardiovascular Health. A quarterly publication of TheHeart.org

2005 - 2009: Ad hoc manuscript reviewer for the peer-reviewed journal: ACP Journal Club

2005 – 2009 Ad hoc manuscript reviewer for the peer-reviewed journal: Evidence Based Medicine

2005 – 2009 Ad hoc reviewer Annals of Emergency Medicine

2004 - 2009: Ad hoc manuscript reviewer for the peer-reviewed journal: Canadian Journal of Emergency Medicine (CJEM).

2001 - 2009: Research abstract reviewer, research section, Canadian Association of Emergency Physicians (CAEP) annual meeting.

2002 - 2009: Ad hoc manuscript reviewer for the peer-reviewed journal: Academic Emergency Medicine (SAEM).

2002 - 2009: Sentinel reader for ACP Journal Club and Evidence-based Medicine. McMaster University, Canadian Center for Health Evidence.

2002 - 2009: Managing editor eMedicine (<http://www.emedicine.com/emerg/>) project; 15 chapters.

| |
|---------------|
| Grant Reviews |
|---------------|

2017 Grant Review of of the Health Services Evaluation & Interventions Research (3) (HS3) committee for the Project Grant: Fall 2017 competition. CIHR

2014: Grant reviewer. PSI Foundation (Physicians' Services Incorporated Foundation).Ontario,

2014: Grant reviewer, The Israel National Institute for Health Policy Research

- 2009 - 2011: Grant reviewer: Physicians' Services Incorporated Foundation.
- 2007 - 2011: Research chair and coordinator of the Research Grant Program, Canadian Association of Emergency Physicians. Four year term. Tasks include assigning and collating reviews. 20 – 25 applications, 50+ grant reviews to collate.
- 2009: Knowledge Translation Team Grant Review, CIHR and Alberta Heritage Foundation for Medical Research
- 2008: Grant review, CIHR Randomized Controlled Trials
- 2007: External reviewer, research protocol, Canadian Heart and Stroke Foundation
- 2005: External reviewer, research protocol, National Grants competition Sick Kids Foundation.
- 2005: Drummond Foundation grant review.

McGill Activities 1995 - 2009:

- Lecturer in the Medico-Administrative Rotation for McGill Royal College Residency Training Program and CCFP (EM) residents in Emergency Medicine (1997 to present). Topics presented:
 - Successful Discharge Planning and Emergency Department Revisits.
 - Interdepartmental Protocol Development.
- Resident Supervisor/Mentor and CCFP (EM) Coordinator:
 - Monthly Journal Club Meetings/Critical Appraisal Exercise of the McGill Royal College Residency Training Program.
- Bedside Teaching.
- Lecturer in the Emergency Medicine July Lecture Series for residents of the SMBD-Jewish General Hospital:
 - "Emergency Management of Oncologic Emergencies".
- Board preparation seminar CCFP (EM) residency program. Topics Presented:
 - Orthopedic and Urologic Emergencies;
 - Environmental Emergencies;
 - Toxicologic Emergencies;
 - Pre-exam mock orals.

Annual McGill since 2002-2009:

- Curriculum Committee: McGill University CCFP (EM) program. Dossiers:
 - Journal Club;
 - Pediatric Emergency Medicine.
- Curriculum Committee: McGill University FRCP program.
- Residency Program Committee: McGill University FRCP program.

- ACLS instructor, fourth year medical students and nursing participants, annual course.
- Lecturer of clinical emergency medicine for medical students, residents of internal medicine, family medicine and emergency medicine on clinical rotations in the department. Topics presented:
 - Hematologic and Oncologic Emergencies;
 - Electrical Injuries;
 - Toxicology of Cardiac Medications;
 - Toxic Inhalations.

| |
|---------------------------------|
| Administrative Responsibilities |
|---------------------------------|

2013 – Present: Calgary Zone Emergency Department Interim Clinical and Academic Head

2013 – Present: Member of Advisory Committee on Knowledge Engagement at University of Calgary

2010 – 2011: Alberta Health Services Emergency Clinical Network. Membership:

Core Steering Committee
Performance Indicators
Clinical content

2010 – 2011: Academic Steering Committee; Emergency Medicine – University of Calgary

McGill Activities

In-Hospital Protocol Development (Principal Authorship):

- 2008: A Comprehensive TIA Pathway for Emergency Department Patients
- 2003: SMBD-JGH Joint Emergency and Radiology Interdepartmental Policy for the Performance of Emergent Computerized Tomography during the Overnight Period.
- 1999: SMBD-Jewish General Emergency Department Protocol for the Administration of Influenza and Pneumococcal Vaccines to Selected Patients.
- 1999: SMBD-JGH Joint Emergency and Radiology Interdepartmental Guidelines for the Performance of Magnetic Resonance Imaging in Selected Patients.
- 1999: TPA in Acute Ischemic Stroke.
- 1998: Emergency Department Weight-Based Heparin Protocol.
- 1997: Low Molecular Weight Heparin in Ambulatory Patients with Deep Venous Thrombosis.
- 1997: Guidelines for the Ordering and Utilization of Cardiac Troponin T in the Emergency Department.
- 1996: Coronary Angioplasty in Acute Myocardial Infarction.

- 1995: Interdepartmental Guidelines for the Management and Disposition of Patients with Acute Musculoskeletal Injuries.
- 1994: Procedural Guidelines pertaining to Emergency Department patients asked to Return for Diagnostic Imaging Studies.
- 1994: Guidelines for Determining the Disposition of Geriatric Patients Requiring Hospitalization.

Continuous Quality Improvement (Ongoing Projects):

- 2002 - present: Chair, Emergency CQI committee.
- 2005: Emergency Department Patient Satisfaction Survey: Androfact.
- 1999: Vaccine utilization as part of the recently implemented pneumococcus and influenza vaccination program.
- 1999: Door to needle time in thrombolysis.

Audits:

- Return Visits within three days, primary monitor.
- Trimesterly reports to the SMBD-JGH Continuous Quality Improvement Steering Committee and the SMBD-JGH Board of Directors.
- Quality Audit of Partial Thromboplastin Times in Patients receiving weight-based heparin therapy.
- A report to the SMBD-JGH Committee for the Assessment of Medical Acts (CAMA).
- Patient Satisfaction Questionnaire, participant.
- Implementation Committee member: SECUS, validated patient satisfaction questionnaire, Université de Montréal.
- Measuring efficiency in completing diagnostic imaging for emergency department patients.

Committees:

- 1999 - 2006: Medical Executive Committee representative to the SMBD-Jewish General Hospital Continuous Quality Improvement Committee.
- 1997 - 2004: Chairman, ED working group for the completion of the 1997 Canadian Council on Health Services Accreditation Survey (CCAHS).
Principal authorship of the Accreditation Standards submitted to the CCAHS.
- 1997: SMBD-JGH Disciplinary Committee investigating patient complaints.
- 1996 - 2006: SMBD-JGH Humanization of Care Committee. Principal function: Instituting annual Medical Grand Rounds as the inaugural event to "Humanization of Care Week", annually since 1996.
- 1995: SMBD-JGH Discharge Planning Task Force.
- 1994: SMBD-JGH Task Force on the Care of the Frail Elderly.

Inter-Departmental Liaison:

1996 - 1999: Radiology: Performance monitoring, protocol development, troubleshooting.

Patient Relations:

1994 - 2005: Researching and responding to patient complaints as they pertain to ED evaluation and management (20 completed so far).

| Consultative Roles / Expertise / Appointments | |
|---|---|
| 2018 | CAEP 18 Abstract Reviews Competition Member |
| 2016: | Guidelines International Network (G-I-N) Committee Member |
| 2016: | Voice-over slides for acute stroke on-line course. |
| 2016: | Reviewer for O'Brien Institute for Public Health's last round of internal peer reviewing |
| 2015: | Recommendations editor at DynaMed. |
| 2015: | Vice-chair of the Knowledge Mobilization Advisory Committee for TREKK |
| 2014: | Knowledge to Action Fellowship (KTAF) program director. Program sponsored by the Section on Evidence Based Health Care, The New York Academy of Medicine and the Emergency Medicine Resident's Association. |
| 2014: | WHO Guideline Meeting -Paediatric Emergency Triage, Assessment and Treatment (ETAT), Geneva, Switzerland. |
| 2013 - Present | GRADE methodologist, HELPinKIDS |
| 2013: | CanMEDS Working Group Co-Chair |
| 2012: | ACEP Scientific Assembly. Member |
| 2012 - Present | GRADE consultant to the International Liaison Committee on Resuscitation (ILCOR) – all task forces |
| 2009-2012: | Technical lead / GRADE consultant National Highway Transportation Safety Agency. Three guidelines |
| 2011 - 2012: | Planning Committee / co-applicant: Guideline International Network North America Conference Project in collaboration with the New York Academy of Medicine. e-GAPPS. |
| 2011-2012: | Chair Canadian Association of Emergency Physicians Stroke Practice Committee: Guideline Development for Acute Stroke Care. |
| 2011: | Guideline International Network / International Federation of Emergency Medicine collaborative initiative around Guideline Adaptation and Implementation in Sepsis |
| 2011 – Present: | Advisory board member, PECARN (Pediatric Emergency Care Applied Research Network). |

- 2010 – Present: GRADE working group. Teaching Evidence Assimilation for Collaborative Healthcare. Sponsored by the Section on Evidence Based Health Care, They New York Academy of Medicine.
- 2009 - 2010: Guideline panelist American College of Chest Physicians, Antithrombotic Guidelines – 9th edition. Chapter involvement: Stroke and DVT diagnosis.
- 2009: Scientific Advisory Committee: Guidelines International Network Annual Scientific Meeting, for 2010.
- 2009: Advisory Committee. CONCERT investigators COPD Network of Researchers. AHRQ-funded Comparative Effectiveness Research Initiative.
- 2008: Expert Advisory Committee. CONCERT investigators COPD Network of Researchers. Knowledge Translation Consensus Conference
- 2008: Steering committee, Federal Interagency Committee on Emergency Medical Services Evidence-based practice guideline project. National Highway and Transportation Safety Association, Department of Transportation, US Federal Government.
- 2008: Research chair, Canadian Association of Emergency Physicians. Three year term. Responsible for abstract and grant competition as well as Research Track at Annual Scientific meeting
- 2008: External reviewer: Randomized controlled trials, Canadian Institutes of Health Research
- 2008: Medicolegal expertise for Me Guy Ruel Lawyer, Quebec City.
- 2007: Elected chairman of the Society for Academic Emergency Medicine Evidence-Based Medicine Interest Group. Three year term.
- 2006: Medicolegal expertise for Tasse Barristers and Solicitors, Quebec City.
- 2005: External reviewer, systematic review on Emergency Crowding, Alberta Heritage Foundation for Medical Research.
- 2003 - present: Granted membership to the Société des Médecins Experts de Québec.
- 2003 - present: Medicolegal expertise with the Canadian Medical Protective Association (CMPA) through the firm of McCarthyTétrault.
- 2001 - 2006: President, Examination Committee (Jury) in Emergency Medicine, College of Physicians of Quebec. Examination development and administration.
- 2003 - 2006: Member of the Examination Board Royal College of Physicians and Surgeons of Canada, Emergency Medicine.
- 2002 - 2004: Medicolegal expertise for the firms of:
Prochaska, Scott & Craig, Wichita Kansas, USA
The Wells Law Firm, Kansas City Missouri, USA
- 2001: External reviewer, research protocols, Drummond Foundation.
- 1999 - 2007: Medical Consultant to Conceptis Technologies Inc. Sample activities:

2017-2018

1. PROJECT Improving Health Care Practices and Processes Through Behavioural Change

INVESTIGATORS: Marco Bijvank, Diane Bischak, Loren Falkenberg, Negar Ganjoughaghi, Jo-Louise Huq, Mehdi Mourali, Jaana Woiceshyn; and collaborators Michael Carter, Shelagh Coutts, Eddy Lang, Kerry McBrien, Sachin Pendharkar, Gudrun Reay, Paul Ronksley, Stephen van Gaal, Jillian Walsh

AGENCY: HASKAYNE SCHOOL OF BUSINESS- University of Calgary

TOTAL FUNDS GRANTED \$240,500

2. PROJECT Apixaban versus low molecular weight heparin for treatment of catheter related thrombosis in cancer patients- A pilot study to assess feasibility of a randomized controlled trial

INVESTIGATORS: Deepa Suryanarayan, Eddy Lang

AGENCY: CRF-Seed Grant

TOTAL FUNDS GRANTED \$30,000

2016-2017

1.PROJECT:

INVESTIGATORS: A

AGENCY: PRIHS

TOTAL FUNDS GRANTED: \$0

2015-2016

2.PROJECT: The Transition Navigator Trial: Evaluating a patient navigator service to improve transition to adult health services for youth and young adults with chronic health conditions

INVESTIGATORS: Susan Samuel, Andrew Mackie, Gina Dimitropoulos, Alberto Nettel-Aguirre, Scott Klarenbach, Daniele Pacaud, Eddy Lang, Gail Andrew, Greg Guilcher, Lonnie Zwaigenbaum, Jorge Pinzon, Lorraine Hamiwka, Shannon Scott

| | |
|-----------------------------|--|
| AGENCY: | Health Outcomes Improvement Fund, Maternal Newborn, Child and Youth Strategic Clinical Network, Alberta Health Services (2017-2020) |
| TOTAL FUNDS GRANTED: | \$375,000 |
| 3.PROJECT: | Innovations in Transition to Adult Care: Well on Your Way Program |
| INVESTIGATORS: | Susan Samuel, Andrew Mackie, Gina Dimitropoulos, Alberto Nettel-Aguirre, Scott Klarenbach, Daniele Pacaud, Eddy Lang, Gail Andrew, Greg Guilcher, Lonnie Zwaigenbaum, Jorge Pinzon, Lorraine Hamiwka, Shannon Scott |
| AGENCY: | BMO Endowed Research Award in Healthy Living, Alberta Children's Hospital Research Institute (2017-2020) |
| TOTAL FUNDS GRANTED: | \$350,000 |
| 4.PROJECT: | The Canadian Head CT Patient Decision Aid Consensus Study - Adaptation of two decision aids supporting adult and pediatric mild traumatic brain injury patients' decisions about head CTs: a pan-Canadian consensus meeting and rapid prototyping with input from an expert panel to produce Canadian versions of two American head CT decision aids |
| INVESTIGATORS: | Patrick Archambault, Isabelle Gagnon, Rob Green, Roger Zemek, Janet Curran, Marie-Pierre Gagnon, Jocelyn Gravel, France Légaré, Marie-Christine Ouellet, Patrick Plante, Annie Leblanc, Nathalie Le Sage, Eddy Lang, Louise Sauvé, Holly Witteman |
| AGENCY: | Canadian Traumatic Brain Injury Research Consortium (CTRC) |
| TOTAL FUNDS GRANTED: | \$25,000 (2016/11 – 2018/10) |
| 5.PROJECT: | Validation of a clinical decision rule integrating the use of biomarkers for early detection of persistent symptoms after a MTBI |
| INVESTIGATORS: | Le Sage N, Archambault P, Berthelot S, Chauny JM, Clément J, De Guise E, Emond M, Frenette J, Lang E, Lee J, Mercier É, Moore L, Ouellet MC, Perry J, Cameron PA (coll.), Swaine B (coll.) |
| AGENCY: | CIHR |
| TOTAL FUNDS GRANTED: | \$760,676 |
| 6.PROJECT: | Coordinated Care Team for Vulnerable Patients with Complex Care Needs |
| INVESTIGATORS: | Fabreau G, Lang E, McBrien KA, Nguyen VT. |
| AGENCY: | AIHS PRIHS |
| TOTAL FUNDS GRANTED: | \$TBD |
| 7.PROJECT: | Connecting Emergency Departments with Community services to prevent mobility losses in pre-frail & frail Seniors (CEDeComS) |
| INVESTIGATORS: | Emond M, Aubertin MC, Berg KO, Bissonnette L, Daoust R, Eagles D, Elazhary N, Lang ES, Lee JS, Provencher V, Salbach N, Sirois M, Brousseau A, Carpenter CR, Costa |

AP, de Wit K, Giguère A, Juneau L, Lamontagne M, Le Sage N, Melady D, Molnar FJ, Morin M, Ouellet M, Perry JJ, Veillette N, Wilding LJ

AGENCY: CIHR
TOTAL FUNDS GRANTED: \$1,643,676

8. PROJECT: Social determinants of post-discharge readmissions, emergency department visits, and mortality in medical inpatients

INVESTIGATORS: Amin Ghali W, Musto R, Falvo N, Godley J, **Lang ES**, Manns B, Nguyen V, Parrilla Lopez M, Rabi D, Sajobi T, Tang K

AGENCY: CIHR - PHSI
TOTAL FUNDS GRANTED: \$142,000

9. PROJECT: Pain Management from Skin-Breaking Procedures in Neonates: Knowledge Synthesis and Practice Guidelines
INVESTIGATORS: Shah V, Lacaze-Masmonteil T, Taddio A, Harrison D, **Lang ES**, Ng E, Pillai Riddell R, Robson K

AGENCY: CIHR
TOTAL FUNDS GRANTED: \$100,000

2014-2015

10. PROJECT: Process Improvements at Hospital Emergency Departments.

INVESTIGATORS: Marco Bijvank, Diane Bischak, Zhankun Sun and **Eddy Lang**.

AGENCY: AIHS-PRIHS
TOTAL FUNDS GRANTED: \$7,040.00

11. PROJECT: Reassessment of Clinical Practices for Patient Presenting to the Emergency Department with Upper Gastrointestinal Bleeding.

INVESTIGATORS: Lang ES, Bullard MJ, Ghosh S, Hebert MA, Innes G, Kaplan GG, McRae AD, Novak K, Zanten SV.

AGENCY: AIHS-PRIHS
TOTAL FUNDS GRANTED: \$699,000

3. PROJECT: Improving the Stewardship of Diagnostic Imaging Resources in Alberta Emergency Departments.

INVESTIGATORS: Lang ES, McRae A, Holroyd B, Rowe B, Emery D, Andruchow J, Bullard M, Sevick R.

AGENCY: AIHS-PRIHS
TOTAL FUNDS GRANTED: \$750,000

4. PROJECT: ACHIEVE (AmbulanCe Housed Ischemic Stroke Treatment with intraVENous Thrombolysis) - Quality Improvement - Clinical Research (QuICR): Alberta Stroke Team

INVESTIGATORS: Hill, M, Lang ES, et al.
AGENCY: QuICR CRIO

TOTAL FUNDS GRANTED: TBD

5. PROJECT: The RASET TRIAL: A Phase III, Multi-centre, Randomized Trial to Compare Rivaroxaban with Placebo for the Treatment of Symptomatic Leg superficial Vein Thrombosis.

INVESTIGATORS: Kearon C, Julian J, Lang ES, et al.

AGENCY: Ontario Clinical Oncology Group, Bayer Inc.

TOTAL FUNDS GRANTED: TBD

6. PROJECT: Drivers behind practice variations and barriers and facilitator of guidelines use. Subset of study: Reassessment of clinical practices for patients presenting to the emergency department with upper gastrointestinal bleeding.

INVESTIGATORS: Lang ES, Nikoo S.

AGENCY: Emergency Strategic Clinical Network Summer Studentship award - AHS

TOTAL FUNDS GRANTED: \$1400 (Summer 2015)

7. PROJECT: Understanding physician perspectives on adherence to a clinical intervention advancing decision support tool in the Emergency Department.

INVESTIGATORS: Lang ES, Trumble D.

AGENCY: 2015 AIHS summer studentship award

TOTAL FUNDS GRANTED: \$5600 (Summer 2015)

| |
|------------------|
| 2013-2014 |
|------------------|

1. **PROJECT:** A Randomized, Controlled Comparison of Electrical versus Pharmacological Cardioversion for Emergency Department Patients with Recent-Onset Atrial Fibrillation and Flutter (RAFF) **(Not found in CIHR site)**

INVESTIGATORS: Stiell I, Birnie D, Borgundvaag B, Brison R, Hohl C, Lang E, Macle L, Perry J, Rowe B, Vadeboncoeur A, Wells G, CIHR

AGENCY: CIHR

TOTAL FUNDS GRANTED: Pending

2. **PROJECT:** D-dimer Testing, Tailored to Clinical Pretest Probability, to Minimize Initial and Follow-up Ultrasound Testing in Suspected Deep Vein Thrombosis: A Management Study. The Designer D-dimer DVT Diagnosis (4D) Study.

INVESTIGATORS: Kearon C, Afilalo M, Douketis J, Kahn S, Lazo-langner A, Rodger M, Wells P, bates S, Gafni A, Kovacs M, Le Gal G, Schulman S, Wu C, Carrier M, Julian J, Lang E, Linkins L, Shivakumar S,

AGENCY: CIHR

TOTAL FUNDS GRANTED: \$ 424,757

AMOUNT CURRENT YEAR: \$ 220,256

3. **PROJECT:** Improving the Stewardship of Diagnostic Imaging Resources in Alberta Emergency Departments

INVESTIGATORS: Lang E, McRae A, Holroyd B, Rowe B, Emery D, Andruchow J, Bullard M, Sevick R

- | | |
|-----------------------------|---|
| AGENCY: | AIHS-PRIHS |
| TOTAL FUNDS GRANTED: | \$750,000 |
| | |
| 4. PROJECT: | High-sensitivity troponin T: Associations with mortality and optimal assay utilization in emergency department patients |
| INVESTIGATORS: | McRae A, Andruchow J, Clark S, Faris, P, Graham M, Lang E. |
| AGENCY: | CIHR |
| TOTAL FUNDS GRANTED: | \$ 126,466 (2013-2015) |
| AMOUNT CURRENT YEAR: | \$ 84,765 |
| | |
| 5. PROJECT: | Development and planning of a theory-based implementation of a national wiki-based reminder system promoting best practices in trauma care |
| INVESTIGATORS: | Belt T, Eysenbach G, Gagnon M, Lang E, Lauzier F, Legare F, Moore L, Risoli S, Sinuff T, Stelfox H, Turgeon A, Witteman H |
| AGENCY: | HSPR - CIHR |
| TOTAL FUNDS GRANTED: | \$24,956 |
| | |
| 6. PROJECT: | Needle Fears in Children undergoing Medical Procedures: Knowledge Synthesis, Practice Guidelines, and Dissemination Strategies. |
| INVESTIGATORS: | Bucci L, Mcmurtry C M, Mousnanis P, Riede M, Toddio A, Votta-Bleeker E, Chambers C, Halperin S, Ipp M, Lang E, Macdonald N, Noel M, Pillai Riddell R, Shah V, Uleryk M |
| AGENCY: | CIHR |
| TOTAL FUNDS GRANTED: | \$99,936 |
| | |
| 7. PROJECT: | D-dimer testing, tailored to clinical pretest probability, to reduce use of CT pulmonary angiography in suspected pulmonary embolism: A management study. (PE Graduated D-dimer [PEGeD] Study). |
| INVESTIGATORS: | Kearon C, Afilalo M, Bates SM, Carrier M, Douketis JD, Gafni A, Hirsch AM, Julian JA, Kahn SR, Kovacs MJ, Lang ES, Lazo-Langner A, LeGal G, Linkins LA, Rodger MA, Schulman S, Shivakumar SP, Takach LS, Wells PS, Wu CM. |
| AGENCY: | CIHR |
| TOTAL FUNDS GRANTED: | \$ 329,928 |
| AMOUNT CURRENT YEAR: | \$ 230,507 |
| | |
| 8. PROJECT: | Implementing GRADE-Based Analgesia Management through Dedicated Emergency Department Order Sets |
| INVESTIGATORS: | Lang ES, et al. |
| AGENCY: | AIHS-KTH |
| TOTAL FUNDS GRANTED: | \$25.000 (2013-2014) |
| | |
| 9. PROJECT: | Empirical Validation of Emergency Department Crowding Metrics |
| INVESTIGATORS: | McRae A, Andruchow J, Innes G, Lang E, Rowe B, Schull M |
| AGENCY: | HSPR - CIHR |
| TOTAL FUNDS GRANTED: | \$96,353 |

1. **PROJECT:** A Multicenter prospective Cohort Study of Adverse Events Among Patients Discharged with Sentinel Cardiovascular Emergency Department Diagnoses
INVESTIGATORS: Calder LA, Borgundvaag B, Daoust R, Emond M, Forster AJ, Land ES, Perry JJ, Rowe BH, Sivilotti ML, Stiell IG, Taljaard M, Thiruanasambandamoorthy V, Wells GA
AGENCY: CIHR
TOTAL FUNDS GRANTED: \$370,121 (2012-2015)
AMOUNT CURRENT YEAR: \$155,848
2. **PROJECT:** Planning the Evaluation of Medication Review in Emergency Department Patients
INVESTIGATORS: Hohl CM, Lexchin J, Sobolev BG, Brasher P, Bryan S, Goodland H, Green L, Lang ES, Perry JJ, Reddekopp LN, Rowe BH, Stiell IG, Wanbon RG
AGENCY: CIHR
TOTAL FUNDS GRANTED: \$24,997
3. **PROJECT:** How does Management of Chronic Obstructive Pulmonary Disease Hospitalizations affect Patient-centred Health Outcomes and Cardiovascular Risk?
INVESTIGATORS: Stickland M, Leigh R, Bhutani M, Rodgers W, Wong E, Field S, Cowie B, Edgell H, Rosychuk R, Rowe BH, Lang E, Poulin M, Mody C,
AGENCY: AIHS CRIO
TOTAL FUNDS GRANTED: \$250,000
4. **PROJECT:** A comparison of Electronic Health Record Use in Alberta
INVESTIGATORS: Bullard M, Ali, S, Graham T, Lang ES.
AGENCY: Canada Health Infoway
TOTAL FUNDS GRANTED: \$25,000 (2012-2016)
5. **PROJECT:** System Transformation and Re-Engineering for Acute Medical Services
INVESTIGATORS: Grant I, Lang ES.
AGENCY: AHFMR
TOTAL FUNDS GRANTED: \$300,000 (2012-2015)
6. **PROJECT:** An Analysis of Rugby Injuries Presenting for Emergency Care.
INVESTIGATORS: Lang ES.
AGENCY: **CIHR (Not found in CIHR site)**
TOTAL FUNDS GRANTED: \$4 317 (2012-2013)
7. **PROJECT:** Use and risk factors for injury among skiers and snowboarders
INVESTIGATORS: Hagel B, Lang ES.
AGENCY: Alberta Children's Hospital Foundation
TOTAL FUNDS GRANTED: \$49 972 (2012-2013)
8. **PROJECT:** Helmet use and risk factors for injury among skiers and snowboarders
INVESTIGATORS: Hagel B, Lang ES.
AGENCY: Alberta Children's Health Research Institute
TOTAL FUNDS GRANTED: \$49 972 (2012-2014)

2011-2012

1. **PROJECT:** Risk Stratification of Adult Emergency Department Syncope Patients to Predict Short-term Serious Adverse Events after Discharge (RiSEDS Study)
INVESTIGATORS: Thiruganasambandamoorthy V, Lang, ES, Murray HE, Rowe BH, Sheldon RS, Sivilotti ML, Stiell IG, Wells GA
AGENCY: CIHR
TOTAL FUNDS GRANTED: \$352 280 (2011-2013)

2. **PROJECT:** Completion of the Derivation of a Clinical Decision Rule to Predict Mobility Decline among Independent Seniors with Minor Injuries in the Emergency Department (Phase 1B)
INVESTIGATORS: Daoust R, Emond M, Griffith LE, Lee JS, Perry JJ, Sirois MJ, Verreault R, Balion CM, Lang ES, Le Sage N, Liu B, Miran-Khan K, Moore L, Naglie G, Ouellet MC, Wilber S, Wilding LJY, Worster A.
AGENCY: CIHR
TOTAL FUNDS GRANTED: \$ 472 096 (2012-2014)

3. **PROJECT:** ED-directed Interventions to Improve Outcomes after Asthma Exacerbations
INVESTIGATORS: Rowe BH, Bhutani M, Borgundvaag B, Lang ES, Leigh R, Majumdar SR, McCabe C, Rosychuk RJ, Villa-Roel C.
AGENCY: CIHR
TOTAL FUNDS GRANTED: \$ 445 972

4. **PROJECT:** Differences in outcome for adult patients presenting with hypoglycemia: a multicentre study
INVESTIGATORS: Rowe, B, Lang ES, et al.
AGENCY: Canadian Association of Emergency Physicians
TOTAL FUNDS GRANTED: \$11.000

5. **PROJECT:** Translating Emergency Knowledge for Kids (TREKK).
INVESTIGATORS: Klassen, T, Lang ES, et al.
AGENCY: Networks of Centres of Excellence (NCE)
TOTAL FUNDS GRANTED: \$1.595.000 (2011-2014)

6. **PROJECT:** A Study to Derive a Clinical Decision Rule to Predict Short Term Cardiac Outcomes in Adult Syncope Patients after ED Discharge.
INVESTIGATORS: Thiruganasambandamoorthy V, Lang ES, et al.
AGENCY: Canadian Institutes of Health Research (**Not found in CIHR site**)
TOTAL FUNDS GRANTED: \$500.000 (2011-2014)

7. **PROJECT:** Implementation and evaluation of Electronic Clinical Practice Guideline (eCPG) in Alberta..
INVESTIGATORS: Bullard M, Lang ES, et al.
AGENCY: Canadian Institutes of Health Research - PHSI (**Not found in CIHR site**)
TOTAL FUNDS GRANTED: \$379 293 (2012-2015)

2010-2011

1. **PROJECT:** Emergency room visits and palliative care services: The Canary in the coal mine?
INVESTIGATORS: Thomas BC, Simon J, Sinnarajah A, Hagen N, Lang E, Carlson L, Admasu T, Bultz B.
AGENCY: Alberta Innovates Health Solutions/ Alberta Cancer Foundation.
TOTAL FUNDS GRANTED: \$ 100 000 per year (2009-2011)

2. **PROJECT:** Determining Needs of Southern Alberta Rural Communities for Improved Sexual Assault Services
INVESTIGATORS: Snell-Carter C, Lang E et al.
AGENCY: Alberta Rural Development Network
TOTAL FUNDS GRANTED: \$ 10 000

3. **PROJECT:** The Development of a Research Agenda in Emergency Ultrasound (Conference Grant)
INVESTIGATORS: Lang E, McLaughlin K, McRae A
AGENCY: Alberta Innovates Health Solutions
TOTAL FUNDS GRANTED: \$ 2 500

4. **PROJECT:** An Evaluation of an Atrial Fibrillation Clinic for the Follow-up of Patients Presenting to the Emergency Department with Newly Diagnosed or Symptomatic Arrhythmia.
INVESTIGATORS: Lang E, Gillis A, Quinn R, Hone B
AGENCY: Boehringer Ingelheim (unrestricted)
TOTAL FUNDS GRANTED: \$ 5 000

5. **PROJECT:** The Canadian Emergency departments team initiative (CETI) of mobility after an injury in seniors.
INVESTIGATORS: Emond M, Griffith LE, Lee JS, Perry JJ, Sirois MJ, Veillette N, Verreault R, Balion CM, Daoust R, Lamontagne ME, Lang ES, Le SN, Liu B, Moore L, Morin JG, Naglie G,, Ouellet MC, Raina PS, Ryan DP, Tarride JE, Wilding LY, Worster A.
AGENCY: CIHR
TOTAL FUNDS GRANTED: \$1,125,000 (2010-2016)
AMOUNT CURRENT YEAR: \$ 250,000

6. **PROJECT:** Efficacy and Safety Study of JNJ-32729463 Compared With Moxifloxacin for the Treatment of Subjects Requiring Hospitalization for Community-Acquired Bacterial Pneumonia
INVESTIGATORS: Lang E, et al.
AGENCY: Johnson & Johnson Medical Products
TOTAL FUNDS GRANTED: \$ 15 000 (2010-2011)

6. **PROJECT:** A Phase 3b Study of Vernakalant Injection in Patients With Recent Onset Symptomatic Atrial Fibrillation (AF) (ACT V)
INVESTIGATORS: Lang E, et al.
AGENCY: Cardiome Pharma Corp.
TOTAL FUNDS GRANTED: \$ 30 000 (2010-2012)

6. **PROJECT:** Tissue Biobank Studies of the Alberta Sepsis Network
INVESTIGATORS: Lang E, et al.

- AGENCY:** Alberta Heritage Foundation for Medical Research (AHFMR)
TOTAL FUNDS GRANTED: \$ 450 000 (2010-2012)
7. **PROJECT:** A Multifaceted Assessment of Medical Admission Units
INVESTIGATORS: Ghali W, Lang E, et al.
AGENCY: Alberta Health Services
TOTAL FUNDS GRANTED: \$ 30 000 (2011-2012)
8. **PROJECT:** Medical Assessment Units and their Impact on Emergency Department Crowding: A Systematic Review
INVESTIGATORS: Lang E.
AGENCY: Alberta Health Services
TOTAL FUNDS GRANTED: \$ 5 000 (2011-2012)

| |
|------------------|
| 2009-2010 |
|------------------|

1. **PROJECT:** TEACH Project (Teaching Evidence Assimilation for Collaborative Healthcare)
INVESTIGATORS: Wyer, Peter C.; **LANG, Eddy S**; Eskin Barnet E; Wright, S. New York Academy of Medicine Section for Evidence-Based Healthcare
AGENCY: AHRQ Large conference grant funding
TOTAL FUNDS GRANTED: \$ 100 000 per year for years (2009-2011)
AMOUNT CURRENT YEAR: Favorable review June 2009 – confirmation pending
2. **PROJECT:** Prospective Evaluation of Long-term Outcomes after Pulmonary Embolism: The ELOPE Study
INVESTIGATORS: Kahn SR, Granton JT, Hirsch AM, Aaron SD, Anderson DR, Dennie CJ, Geerts WH, Hernandez P, Holcroft CA, Kovacs MJ, **Lang ES**, Mehta S, Rodger MA, Rudski LG, Wells PS.
AGENCY: CIHR
TOTAL FUNDS GRANTED: \$ 829 330 for 3 years (2009/01 to 2012/01)
3. **PROJECT:** Achieving Knowledge Translation in Acute Coronary Syndromes.
AGENCY: CIHR Cardiovascular System - B
TOTAL FUNDS GRANTED: \$ 100 000 per year for 2 years (2009-2010)
INVESTIGATORS: Huynh T et al. **Lang E (co-investigator / KT consultant)**, Afilalo M
AGENCY: Sanofi-aventis
TOTAL FUNDS GRANTED: \$409,000 for four years; 2008/10 – 2012/09
4. **PROJECT:** Safety in Home Care: Focus on Medication Management
INVESTIGATORS: Goodwin, S, Lang A, Macdonald, MT, Marck PB, **Lang E**
AGENCY: CIHR – Partnerships for Health System Improvement (PHSI)
TOTAL FUNDS GRANTED: \$ 299,135 for 4 years (2009-2012)
5. **PROJECT:** A Study to Develop Clinical Decision Rules for the Hospital Admission of Patients with Acute Dyspnea.
INVESTIGATORS: Stiell I et al, **Lang E (Site PI)**
AGENCY: CIHR

- TOTAL FUNDS GRANTED:** \$ 36,000 for 3 years (2008-2009)
AMOUNT CURRENT YEAR: \$ 22,000
6. **PROJECT:** Selective D-Dimer Testing Compared With Uniform D-Dimer Testing in the Diagnosis of Deep Vein Thrombosis: A Randomized Trial.
INVESTIGATORS: Cline K, Kahn S, Kearon C, **Lang E**, Afilalo M, & Linkins L.
AGENCY: Heart and Stroke Foundation
TOTAL FUNDS GRANTED: \$ 48,000 for 4 years (2005-2009)
7. **PROJECT:** Acute Asthma Management (MN-221) novel bronchodilator
SITE INVESTIGATORS: **Lang E**, Afilalo M
AGENCY: Medicinova
TOTAL FUNDS GRANTED: Per patient funding
8. **PROJECT:** A Prospective Evaluation of the Outcomes and Quality of Life of ED Patients with Recent-Onset Atrial Fibrillation
SITE INVESTIGATORS: Stiell IG, Birnie DH, Borgundvaag B, Brison RJ, Dorian P, Lang ES; Perry JJ, Redfearn DP, Rowe BH, Wells GA, Wyse DG.
AGENCY: CIHR
TOTAL FUNDS GRANTED: \$ 100,000 (2009-2010)

2008-2009

1. **PROJECT:** Selective D-Dimer Testing Compared With Uniform D-Dimer Testing in the Diagnosis of Deep Vein Thrombosis: A Randomized Trial.
INVESTIGATORS: Cline K, Kahn S, Kearon C, **Lang E**, Afilalo M, & Linkins L.
AGENCY: Heart and Stroke Foundation
TOTAL FUNDS GRANTED: \$ 48,000 for 4 years (2005-2009)
2. **PROJECT:** AMI-QUEBEC-2: Knowledge translation to reduce delays to reperfusion therapy by primary PCI in Quebec
INVESTIGATORS: Huynh T et al. **Lang E (co-investigator / KT consultant)**, Afilalo M
AGENCY: CIHR Knowledge to Action Program
TOTAL FUNDS GRANTED: \$ 200 000 (2008-2010)

2007-2008

1. **PROJECT:** Knowledge Translation in Emergency Medicine. Academic Emergency Medicine Consensus Conference
INVESTIGATORS: Wyer P, **Lang E**, Biros M.
AGENCY: Agency for Healthcare Research and Quality
TOTAL FUNDS GRANTED: \$ 45 000 USD for 1.5 years (2007-2008)
2. **PROJECT:** Knowledge Translation in Emergency Medicine. Academic Emergency Medicine Consensus Conference
INVESTIGATORS: **Lang E**, Wyer P, Biros M.
AGENCY: CIHR
TOTAL FUNDS GRANTED: \$ 10 000 for 1.5 years (2007-2008)

3. **PROJECT:** Managing Patient Safety (MAPS I): Impact of Clinical, Organizational and Patient Factors on Medical Errors and Adverse Events in the Delivery of Emergency Services.
INVESTIGATORS: Dankoff J, Afilalo M, Segal E, **Lang E**, Guimont C, & Soucy N.
AGENCY: CPSI
TOTAL FUNDS GRANTED: \$ 199,710.18 for 1.5 years (2007-2008)
4. **PROJECT:** Selective D-Dimer Testing Compared With Uniform D-Dimer Testing in the Diagnosis of Deep Vein Thrombosis: A Randomized Trial.
INVESTIGATORS: Cline K, Kahn S, Kearon C, **Lang E**, Afilalo M, & Linkins L.
AGENCY: Heart and Stroke Foundation
TOTAL FUNDS GRANTED: \$ 48,000 for 4 years (2005-2009)

| |
|------------------|
| 2006-2007 |
|------------------|

1. **PROJECT:** Knowledge Translation in Emergency Medicine: Establishing a research agenda and guide map for evidence uptake. Academic Emergency Medicine Consensus Conference – Chicago IL
INVESTIGATORS: **Lang E**, Wyer P, Biro M.
AGENCY: National Institutes of Health
TOTAL FUNDS GRANTED: \$ 10 000USD for 1.5 years (2006-2007)
2. **PROJECT:** Managing Patient Safety (MAPS I): Impact of Clinical, Organizational and Patient Factors on Medical Errors and Adverse Events in the Delivery of Emergency Services.
INVESTIGATORS: Dankoff J, Afilalo M, Segal E, **Lang E**, Guimont C, & Soucy N.
AGENCY: CPSI
TOTAL FUNDS GRANTED: \$ 199,710.18 for 1.5 years (2006-2007)
3. **PROJECT:** Selective D-Dimer Testing Compared With Uniform D-Dimer Testing in the Diagnosis of Deep Vein Thrombosis: A Randomized Trial.
INVESTIGATORS: Cline K, Kahn S, Kearon C, **Lang E**, Afilalo M, & Linkins L.
AGENCY: Heart and Stroke Foundation
TOTAL FUNDS GRANTED: \$ 48,000 for 4 years (2005-2009)

| |
|------------------|
| 2005-2006 |
|------------------|

1. **PROJECT:** Selective D-Dimer Testing Compared With Uniform D-Dimer Testing in the Diagnosis of Deep Vein Thrombosis: A Randomized Trial.
INVESTIGATORS: Cline K, Kahn S, Kearon C, **Lang E**, Afilalo M, & Linkins L.
AGENCY: Heart and Stroke Foundation
TOTAL FUNDS GRANTED: \$ 48,000 for 4 years (2005-2009)
2. **PROJECT:** Investigation of Preventable Adverse Outcomes in the Emergency Department.
INVESTIGATORS: Dankoff J, Afilalo M, **Lang E**, Guttman A, Boivin JF, Colacone A, Soucy N, Xue X, & Léger R.
AGENCY: CMPA
TOTAL FUNDS GRANTED: \$ 50,000 for 1 year (2005-2006)

3. **PROJECT:** Antibiotics for COPD in Emergency (ACE Trial).
INVESTIGATORS: Rowe B, Aaron S, Stiell I, Johnson J, Marrie T, Senthilselvan, & Site Investigators: (Guttman A, Afilalo M, & **Lang E**).
AGENCY: CIHR (MCT 63144)
TOTAL FUNDS GRANTED: \$ 4,000 for 1 year (2005-2006)
4. **PROJECT:** Anti-Inflammatories in Relapses of Asthma (**AIR/ASTHMA Sub-Study**).
INVESTIGATORS: Rowe B, & Site Investigators: (**Lang E**, & Afilalo M), in collaboration with CAEP Consortium.
AGENCY: CAEP
TOTAL FUNDS GRANTED: \$ 30,625 for 1 year (2004-2005)
5. **PROJECT:** The Treatment and Outcomes of Patients Presenting With Exacerbations of Chronic Obstructive Pulmonary Disease (COPD) to the Emergency Department (**ACE Sub-Study**).
INVESTIGATORS: Rowe B, & Site Investigators: (**Lang E**, & Afilalo M).
AGENCY: CAEP
TOTAL FUNDS GRANTED: \$ 30,000 for 1 year (2004-2005)
6. **PROJECT:** Development of a Standardized Diagnosis List for Use in Canadian Emergency Departments.
INVESTIGATORS: Unger B, Afilalo M, Boivin JF, Guttman A, Schull M, Bullard M, **Lang E**, Vandal A, Grafstein E, & Rosenthal S.
AGENCY: CIHR
 Advancing Theories, Frameworks, Methods & Measurement in Health Services Policy
TOTAL FUNDS GRANTED: \$ 149,500 for 2 years (2004-2006)
7. **PROJECT:** Clientèle, fonctionnement du département d'urgence et intégration du réseau dans la problématique des urgences: Analyses et études d'impact.
INVESTIGATORS: Afilalo M, Vandal A, **Lang E**, Collet JP, LeSage N, Guttman A, Boivin JF, Rosenthal S, & Unger B.
AGENCY: FRSQ, MSSS, RRSSS
TOTAL FUNDS GRANTED: \$ 1,187,240 for 4 years (2002-2006)
8. **PROJECT:** A Cohort Study Evaluating the Safety of a Diagnostic Strategy Involving D-Dimer and Compression Ultrasonography in Patients With Suspected Recurrent Deep Vein Thrombosis (**MDA D-Dimer/Recurrent DVT Study**).
INVESTIGATORS: Bates S, & Site Co-Investigators: (Afilalo M, Kahn S, Blostein M, Guttman A, Hirsch A, & **Lang E**).
AGENCY: MRC/CIHR
TOTAL FUNDS GRANTED: \$ 8,000 for 5 years (2001-2006)

| |
|------------------|
| 2004-2005 |
|------------------|

1. **PROJECT:** Development of a Standardized Diagnosis List for Use in Canadian Emergency Departments.
INVESTIGATORS: Unger B, Afilalo M, Boivin JF, Guttman A, Schull M, Bullard M, **Lang E**, Vandal A, Grafstein E, & Rosenthal S.
AGENCY: CIHR

- Advancing Theories, Frameworks, Methods & Measurement in Health Services Policy
\$ 149,500 for 2 years (2004-2006)
- TOTAL FUNDS GRANTED:**
2. **PROJECT:** Clientèle, fonctionnement du département d'urgence et intégration du réseau dans la problématique des urgences: Analyses et études d'impact.
- INVESTIGATORS:** Afilalo M, Vandal A, **Lang E**, Collet JP, LeSage N, Guttman A, Boivin JF, Rosenthal S, & Unger B.
- AGENCY:** FRSQ, MSSS, RRSSS
- TOTAL FUNDS GRANTED:** \$ 1,187,240 for 4 years (2002-2006)
3. **PROJECT:** A Cohort Study Evaluating the Safety of a Diagnostic Strategy Involving D-Dimer and Compression Ultrasonography in Patients With Suspected Recurrent Deep Vein Thrombosis (**MDA D-Dimer/Recurrent DVT Study**).
- INVESTIGATORS:** Bates S, & Site Co-Investigators: (Afilalo M, Kahn S, Blostein M, Guttman A, Hirsch A, & **Lang E**).
- AGENCY:** MRC/CIHR
- TOTAL FUNDS GRANTED:** \$ 8,000 for 5 years (2001-2006)

| |
|------------------|
| 2003-2004 |
|------------------|

1. **PROJECT:** Implantation of a Vaccination Program Against Influenza and Pneumonia for High-risk Patients Presenting to an Emergency Department: An Evaluation Study.
- INVESTIGATORS:** **Lang E**, Afilalo M, Boivin JF, Léger R, & Colacone A.
- AGENCY:** Direction de la santé publique de Montréal centre
- TOTAL FUNDS GRANTED:** \$ 15,000 for 1 year (2003)
2. **PROJECT:** Clientèle, fonctionnement du département d'urgence et intégration du réseau dans la problématique des urgences: Analyses et études d'impact.
- INVESTIGATORS:** Afilalo M, Vandal A, **Lang E**, Collet JP, LeSage N, Guttman A, Boivin JF, Rosenthal S, & Unger B.
- AGENCY:** FRSQ, MSSS, RRSSS
- TOTAL FUNDS GRANTED:** \$ 1,187,240 for 4 years (2002-2006)
3. **PROJECT:** A Cohort Study Evaluating the Safety of a Diagnostic Strategy Involving D-Dimer and Compression Ultrasonography in Patients With Suspected Recurrent Deep Vein Thrombosis (**MDA D-Dimer/Recurrent DVT Study**).
- INVESTIGATORS:** Bates S, & Site Co-Investigators: (Afilalo M, Kahn S, Blostein M, Guttman A, Hirsch A, & **Lang E**).
- AGENCY:** MRC/CIHR
- TOTAL FUNDS GRANTED:** \$ 8,000 for 5 years (2001-2006)
4. **PROJECT:** Pulmonary Embolism Diagnosis Study (**PEDS Study**).
- INVESTIGATORS:** Anderson DR., Kovacs MJ, Wells PS, Rodger MA, Kahn SR, Hirsch AM, O'Rourke K, et al., & Site Co-Investigators: (Afilalo M, **Lang E**, & Guttman A).
- AGENCY:** CIHR
- TOTAL FUNDS GRANTED:** \$ 138,000 for 3 years (2001-2004)

2002-2003

- 1. PROJECT:** Clientèle, fonctionnement du département d'urgence et intégration du réseau dans la problématique des urgences: Analyses et études d'impact.

INVESTIGATORS: Afilalo M, Vandal A, **Lang E**, Collet JP, LeSage N, Guttman A, Boivin JF, Rosenthal S, & Unger B.

AGENCY: FRSQ, MSSS, RRSSS

TOTAL FUNDS GRANTED: \$ 1,187,240 for 4 years (2002-2006)
- 2. PROJECT:** MARC 16: Community Acquired Pneumonia (CAP) in North American Emergency Departments: Resistance and Treatment Success With Long-acting Clarithromycin (MARC16).

INVESTIGATORS: Rowe B, CAEP Consortium, MARC 16, & Site Co-Investigators: (Afilalo M, & **Lang E**).

AGENCY: Association canadienne des médecins d'urgence

TOTAL FUNDS GRANTED: \$ 5,000 for 1 year (2002)
- 3. PROJECT:** Pulmonary Embolism Diagnosis Study (**PEDS Study**).

INVESTIGATORS: Anderson DR., Kovacs MJ, Wells PS, Rodger MA, Kahn SR, Hirsch AM, O'Rourke K, et al., & Site Co-Investigators: (**Lang E**, Afilalo M, & Guttman A).

AGENCY: CIHR

TOTAL FUNDS GRANTED: \$ 138,000 for 3 years (2001-2004)
- 4. PROJECT:** The Impact of a Standardized Communication System (SCS) Between Emergency Department and the Primary Care Network: Effects on Continuity and Quality of Care.

INVESTIGATORS: **Lang E**, Afilalo M, Boivin JF, , Guttman A, Colacone A, Unger B, Tétreault M, Tremblay S, Lapierre S, Vadeboncoeur A, Hamel P, Shrier I, Moore S, Lorange M, & Goldstein H.

AGENCY: CHSRF, FRSQ, MSSS, AMUQ, RRSSS

TOTAL FUNDS GRANTED: \$ 570,930 for 3 years (2000-2003)

2001-2002

- 1. PROJECT:** A Cohort Study Evaluating the Safety of a Diagnostic Strategy Involving D-Dimer and Compression Ultrasonography in Patients With Suspected Recurrent Deep Vein Thrombosis (**MDA D-Dimer/Recurrent DVT Study**).

INVESTIGATORS: Bates S, & Site Co-Investigators: (Afilalo M, Kahn S, Blostein M, Guttman A, Hirsch A, & **Lang E**).

AGENCY: MRC/CIHR

TOTAL FUNDS GRANTED: \$ 8,000 for 5 years (2001-2006)
- 2. PROJECT:** Pulmonary Embolism Diagnosis Study (**PEDS Study**).

INVESTIGATORS: Anderson DR., Kovacs MJ, Wells PS, Rodger MA, Kahn SR, Hirsch AM, O'Rourke K, et al., & Site Co-Investigators: (Afilalo M, **Lang E**, & Guttman A).

AGENCY: CIHR

TOTAL FUNDS GRANTED: \$ 138,000 for 3 years (2001-2004)

3. **PROJECT:** The Impact of a Standardized Communication System (SCS) Between Emergency Department and the Primary Care Network: Effects on Continuity and Quality of Care.
- INVESTIGATORS:** **Lang E**, Afilalo M, Boivin JF, Guttman A, Colacone A, Unger B, Tétreault M, Tremblay S, Lapierre S, Vadeboncoeur A, Hamel P, Shrier I, Moore S, Lorange M, & Goldstein H.
- AGENCY:** CHSRF, FRSQ, MSSS, AMUQ, RRSSS
- TOTAL FUNDS GRANTED:** \$ 570,930 for 3 years (2000-2003)
4. **PROJECT:** Impact d'un coordonnateur des congés au département d'urgence sur le succès des patients âgés.
- INVESTIGATORS:** Afilalo M, Guttman A, Guttman R, Colacone A, **Lang E**, & Rosenthal S.
- AGENCY:** FRSQ, FASS
- TOTAL FUNDS GRANTED:** \$ 146,094 of \$ 456,449 recognized by FRSQ for 1 year (2001)

2000-2001

1. **PROJECT:** The Impact of a Standardized Communication System (SCS) Between Emergency Department and the Primary Care Network: Effects on Continuity and Quality of Care.
- INVESTIGATORS:** Afilalo M, Boivin JF, **Lang E**, Guttman A, Colacone A, Unger B, Tétreault M, Tremblay S, Lapierre S, Vadeboncoeur A, Hamel P, Shrier I, Moore S, Lorange M, & Goldstein H.
- AGENCY:** CHSRF, FRSQ, MSSS, AMUQ, RRSSS
- TOTAL FUNDS GRANTED:** \$ 570,930 for 3 years (2000-2003)
2. **PROJECT:** Impact d'un coordonnateur des congés au département d'urgence sur le succès du congé des patients âgés.
- INVESTIGATORS:** Afilalo M, Guttman A, Colacone A, Unger B, **Lang E**, Schull M, Barnett T, & Cardin S.
- AGENCY:** FASS
- TOTAL FUNDS GRANTED:** \$ 456,449 for 2 years (1999-2001)

1999-2000

1. **PROJECT:** IMPACT Study: IMmediate Possibility to ACcess oseltamivir Treatment.
- INVESTIGATORS:** Site Co-Investigators: (Afilalo M, Guttman A, & **Lang E**).
- AGENCY:** Hoffman-La Roche Ltd.
- TOTAL FUNDS GRANTED:** \$ 30,100 for 1 year (1999-2000)
2. **PROJECT:** An International, Multicenter, Randomized, Double-blind, Placebo-controlled, Parallel-group Study to Assess Over 3 Months the Safety, Efficacy and Pharmaco-Economics of an 800 mg Loading Dose and Five 200 mg Maintenance Doses of GV150526 in the Treatment of Patients With a Clinical Diagnosis of Acute Stroke.
- INVESTIGATORS:** Site Co-Investigators: (Minuk J, Afilalo M, & **Lang E**).
- AGENCY:** Glaxo Wellcome Inc.
- TOTAL FUNDS GRANTED:** \$ 16,000 for 1 year (1999)

3. **PROJECT:** The Effects of 2000 mg Citicoline on Clinical Outcome and the Evolution of Lesion Volume in Human Stroke: Randomized Placebo-controlled Trial.
INVESTIGATORS: Site Co-Investigators: (Minuk J, Afilalo M, & **Lang E**).
AGENCY: Interneuron Pharmaceuticals
AMOUNT: Supported by JGH ED for 1 year (1999).
4. **PROJECT:** Impact d'un coordonnateur des congés au département d'urgence sur le succès du congé des patients âgés.
INVESTIGATORS: Afilalo M, Guttman A, Colacone A, Unger B, **Lang E**, Schull M, Barnett T, & Cardin S.
AGENCY: FASS
TOTAL FUNDS GRANTED: \$ 456,449 for 2 years (1999-2001)

1998-1999

1. **PROJECT:** Qualité des soins et autres facteurs de risque de retour à l'urgence chez les personnes âgées.
INVESTIGATORS: Pineault R, Cardin S, Afilalo M, Colacone A, **Lang E**, Roberge D, & Verdon J.
AGENCY: CHSRF, FRSQ, CHUM, RRSSS, SMBD-JGH
TOTAL FUNDS GRANTED: \$ 154,400 for 1 year (1998-1999)

1992-1993

5. **PROJECT:** General support.
AGENCY: AMUQ
TOTAL FUNDS GRANTED: \$ 2,400 for 1 year (1992-1993)
6. **PROJECT:** General support.
AGENCY: JGH Foundation
TOTAL FUNDS GRANTED: \$ 10,000 for 1 year (1992)

Supervised Students Awards

1. **Student Awardee Name:** Emily Boucher
Supervisor: Dr. Eddy Lang
Project: Efficacy of calcitonin for treating acute pain associated with osteoporotic vertebral compression fracture: an updated systematic review
Agency: ESCN
Year: 2018
Award Amount: \$1500.00

Emergency Medicine Resident Research Projects (2001 – 2005)

1. **Supervisor :** **Dr. E. Lang**
Resident : Dr. Eleena Pearson
Project : The feasibility and impact of an ED-based vaccination program for Influenza and Pneumococcus
Status : Complete
2. **Supervisor :** **Dr. E. Lang, Dr. K. Martin**

- Resident :** Dr. Christine Myers
Project : A systematic review of unenhanced helical CT in the evaluation of renal colic
Status : Complete
3. **Supervisors :** **Dr. E. Lang**, Dr. S. Kahn
Resident : Dr. Carine Hagggar
Project : Evaluation of an ED-Based Outpatient Treatment Protocol for Venous Thromboembolism
Status : Partially completed
4. **Supervisor :** **Dr. E. Lang**, Dr. S. Kahn
Resident : Dr. Tim Josephson
Project : A comprehensive evaluation of patient perception and satisfaction in an ED-Based Outpatient Treatment Protocol for Venous Thromboembolism
Status : Complete

| |
|--|
| Publications in Peer-Reviewed Journals |
|--|

Peer-Reviewed Publications

Published (organized by publication date)

1. Akl EA, Welch V, Pottie K, Eslava-Schmalbach J, Darzi A, Sola I, Katikireddi SV, Singh J, Murad MH, Meerpohl J, Stanev R, **Lang E**, Matovinovic E, Shea B, Agoritsas T, Alexander PE, Snellman A, Brignardello-Petersen R, Gloss D, Thabane L, Shi C, Stein AT, Sharaf R, Briel M, Guyatt G, Schünemann H, Tugwell P. GRADE Equity Guidelines 2: Considering health equity in the GRADE guideline development process. *J Clin Epidemiol*. 2017 May 9. pii: S0895-4356(17)30470-5. doi: 10.1016/j.jclinepi.2017.01.017.
2. Welch VA, Akl EA, Pottie K, Ansari MT, Briel M, Christensen R, Dans A, Dans L, Eslava-Schmalbach JH, Guyatt G, Hultcrantz M, Jull J, Katikireddi SV, **Lang E**, Matovinovic E, Meerpohl JJ, Morton R, Mosdøl A, Murad MH, Petkovic J, Schünemann H, Sharaf R, Shea B, Singh JA, Solà I, Stanev R, Stein AT, Thabane L, Tonia T, Tristan M, Vitols S, Watine J, Tugwell P. GRADE Equity Guidelines 3: Health equity considerations in rating the certainty of synthesized evidence. *J Clin Epidemiol*. 2017 Apr 4. pii: S0895-4356(17)30340-2. doi: 10.1016/j.jclinepi.2017.01.015.
3. Eagles D, Perry JJ, Sirois MJ, **Lang E**, Daoust R, Lee J, Griffith L, Wilding L, Neveu X, Emond M. Timed Up and Go predicts functional decline in older patients presenting to the emergency department following minor trauma†. *Age Ageing*. 2017 Mar 1;46(2):214-218. doi: 10.1093/ageing/afw184.
4. Shannon I.A. Parker, Karen M. Benzies, K. Alix Hayden, **Eddy S. Lang**. Effectiveness of interventions for adult peripheral intravenous catheterization: A systematic review and meta-analysis of randomized controlled trials. *International Emergency Nursing*. Volume 31, March 2017, Pages 15-21. <http://dx.doi.org/10.1016/j.ienj.2016.05.004>
5. Daoust R, Sirois MJ, Lee JS, Perry JJ, Griffith LE, Worster A, **Lang E**, Paquet J, Chauny JM, Émond M. Painful Memories: Reliability of Pain Intensity Recall at 3 Months in Senior Patients. *Pain Res Manag*. 2017;2017:5983721. doi: 10.1155/2017/5983721. Epub 2017 Feb 2.

6. Noreen Kamal, Jessalyn K. Holodinsky, Caroline Stephenson, Devika Kashayp, Andrew M. Demchuk, Michael D. Hill, Renee L. Vilneff, Erin Bugbee, Charlotte Zerna, Nancy Newcommon, **Eddy Lang**, Darren Knox, Eric E. Smith. Improving Door-to-Needle Times for Acute Ischemic Stroke: Effect of Rapid Patient Registration, Moving Directly to Computed Tomography, and Giving Alteplase at the Computed Tomography Scanner. *Circulation: Cardiovascular Quality and Outcomes*. January 2017, Volume 10, Issue 1
7. P. Daniel Patterson, J. Stephen Higgins, **Eddy S. Lang**, Michael S. Runyon, Laura K. Barger, Jonathan R. Studnek, Charity G. Moore, Kathy Robinson, Dia Gainor, Allison Infinger, Patricia M. Weiss, Denisse J. Sequeira, and Christian Martin-Gill. Evidence-Based Guidelines for Fatigue Risk Management in EMS: Formulating Research Questions and Selecting Outcomes. Pages 1-8 | Received 24 Jun 2016, Accepted 16 Jun 2016, Published online: 18 Nov 2016. <http://dx.doi.org/10.1080/10903127.2016.1241329>
8. Lenz K, McRae A, Wang D, Higgins B, Innes G, Cook T, **Lang E**. Slow or swift, your patients' experience won't drift: absence of correlation between physician productivity and the patient experience. *CJEM*. 2016 Nov 7:1-9. [Epub ahead of print]
9. Boyd JM, Burton R, Butler BL, Dyer D, Evans DC, Felteau M, Gruen RL, Jaffe KM, Kortbeek J, **Lang E**, Lougheed V, Moore L, Narciso M, Oxland P, Rivara FP, Roberts D, Sarakbi D, Vine K, Stelfox HT. Development and Validation of Quality Criteria for Providing Patient- and Family-centered Injury Care. *Ann Surg*. 2016 Sep 8. [Epub ahead of print]
10. Brousseau AA, Émond M, Sirois MJ, Daoust R, Griffith LE, **Lang E**, Lee J, Perry JJ, Ouellet MC, Verreault R, Berthelot S, Mercier É, Allain-Boulé N, Boucher V, Tardif PA, Le Sage N. Comparison of functional outcomes in elderly who have sustained a minor trauma with or without head injury: a prospective multicenter cohort study. *CJEM*. 2016 Sep 9:1-9. [Epub ahead of print]
11. Michaud A, **Lang E**. Leg Lift Valsalva Maneuver for Treatment of Supraventricular Tachycardias. *CJEM*. 2016 Aug 12:1-3. PMID: 27514458 DOI: 10.1017/cem.2016.341
12. Sahota IS, **Lang E**. Reducing low-value interventions in the emergency department: you may be part of the problem. *CJEM*. 2016 Aug 9:1-4. PMID: 27503419
13. Wadhvani A, Guo L, Saude E, Els H, **Lang E**, McRae A, Bhayana D. Intravenous and Oral Contrast vs Intravenous Contrast Alone Computed Tomography for the Visualization of Appendix and Diagnosis of Appendicitis in Adult Emergency Department Patients. *Can Assoc Radiol J*. 2016 Aug;67(3):234-41. doi: 10.1016/j.carj.2015.09.013. Epub 2016 Jun 16.
14. Stiell IG, Artz JD, **Lang ES**, Sherbino J, Morrison LJ, Christenson J, Perry JJ, Topping C, Woods R, Green RS, Lim R, Magee K, Foote J, Meckler G, Mensour M, Field S, Chung B, Kuuskne M, Ducharme J, Klein V, McEwen J. An Environmental Scan of Academic Emergency Medicine at the 17 Canadian Medical Schools: Why Does this Matter to Emergency Physicians? *CJEM*. 2016 Jul 21:1-8. PMID: 27441397
15. Parker SI, Benzies KM, Hayden KA, **Lang ES**. Effectiveness of interventions for adult peripheral intravenous catheterization: A systematic review and meta-analysis of randomized controlled trials. *Int Emerg Nurs*. 2016 Jul 11. pii: S1755-599X(16)30050-7. doi: 10.1016/j.ienj.2016.05.004. PMID: 27411965
16. Thiruganasambandamoorthy V, Kwong K, Wells GA, Sivilotti ML, Mukarram M, Rowe BH, **Lang E**, Perry JJ, Sheldon R, Stiell IG, Taljaard M. Development of the Canadian Syncope Risk Score to predict serious adverse events after emergency department assessment of syncope. *CMAJ*. 2016 Jul 4. pii: cmaj.151469. PMID: 27378464

17. Harris DR, **Lang ES**, Perry JJ, Morrison LJ. Treatment of Stroke in Canadian Emergency Departments: Time to be Leaders. *CJEM*. 2016 Jul 5:1-3. PMID: 27378274
18. Hartling L, Milne A, Foisy M, **Lang E**, Sinclair D, Klassen TP, Evered L. What works and what's safe in pediatric emergency procedural sedation: an overview of reviews. *Acad Emerg Med*. 2016 Feb 9. Doi: 10.1111/acem.12938.
19. McMurtry C.M., Taddio A., Noel M., Antony M.M., Chambers C.T., Asmundson G.J.G., Pillai Riddell R., Shah V., MacDonald N.E., Rogers J., Bucci L.M., Mousmanis P., **Lang E.**, Halperin S., Bowles S., Halpert C., Ipp M., Rieder M.J., Robson K., Uleryk E., Votta Bleeker E., Dubey V., Hanrahan A., Lockett D., Scott J. (in press). Exposure-based interventions for the management of individuals with high levels of needle fear across the lifespan: A clinical practice guideline and call for further research. *Cognitive Behaviour Therapy*. 2015.
20. Carlton EW, Khattab A, Greaves K. Identifying patients suitable for discharge after a single-presentation high-sensitivity troponin result: a comparison of five established risk scores and two high-sensitivity assays. *Ann Emerg Med*. 2015;66:635-45 (Commentary by **Dr. Eddy Lang**)
21. Lang A, Macdonald M, Marck P, Toon L, Griffin M, Easty T, Fraser K, MacKinnon N, Mitchell J, **Lang E**, Goodwin S. Seniors managing multiple medications: using mixed methods to view the home care safety lens. *BMC Health Serv Res*. 2015 Dec 12;15(1):548.
22. Taddio A, McMurtry CM, Shah V, Yoon EW, Uleryk E, Pillai Riddell R, **Lang E**, Chambers CT, Noel M, MacDonald NE; HELPinKids&Adults Team.: Methodology for Knowledge Synthesis of the Management of Vaccination Pain and Needle Fear. *Clin J Pain*. 2015 Oct;31(10 Suppl):S12-9. doi: 10.1097
23. Donnino MW, Andersen LW, Berg KM, Reynolds JC, Nolan JP, Morley PT, **Lang E**, Cocchi MN, Xanthos T, Callaway CW, Soar J; FRCA; FFICM; FRCP; ILCOR ALS Task Force: Temperature Management After Cardiac Arrest An Advisory Statement by the Advanced Life Support Task Force of the International Liaison Committee on Resuscitation and the American Heart Association Emergency Cardiovascular Care Committee and the Council on Cardiopulmonary, Critical Care, Perioperative and Resuscitation. *Resuscitation*. 2015 Oct 5. pii: S0300-9572(15)00817-5. doi: 10.1016/j.resuscitation.2015.09.396.
24. Brown GM, **Lang E**, Patel K, McRae A, Chung B, Yoon P, Dong S, Blouin D, Sherbino J, Hicks C, Bandiera G, Meyers C: A National Faculty Development Needs Assessment in Emergency Medicine. *CJEM*. 2015 Sep 9:1-22.
25. Kamal N, Hill MD, Blacquiere DP, Boulanger JM, Boyle K, Buck B, Butcher K, Camden MC, Casaubon LK, Côté R, Demchuk AM, Dowlatshahi D, Dubuc V, Field TS, Ghrooda E, Gioia L, Gladstone DJ, Goyal M, Gubitza GJ, Harris D, Hart RG, Hunter G, Jeerakathil T, Jin A, Khan K, **Lang E**, Lanthier S, Lindsay MP, Mackey A, Mandzia J, Mehdiratta M, Minuk J, Oczkowski W, Odier C, Penn A, Perry J, Pettersen JA, Phillips SJ, Poppe AY, Saposnik G, Selchen D, Shamy M, Sharma M, Shoamanesh A, Shuaib A, Silver F, Stotts G, Swartz R, Tamayo A, Teitelbaum J, Verreault S, Wein T, Yip S, Coutts SB: Rapid Assessment and Treatment of Transient Ischemic Attacks and Minor Stroke in Canadian Emergency Departments: Time for a Paradigm Shift. *Stroke*. 2015 Aug 27. pii: STROKEAHA.115.010454.
26. Taddio A, McMurtry CM, Shah V, Riddell RB, Chambers CT, Noel M, MacDonald N, Rogers J, Bucci L, Mousmanis P, **Lang E**, Halperin SA, Bowles S, Halpert C, Ipp M, Asmundson GJG, Rieder MJ, Robson K, Uleryk E, Antony MM, Dubey V, Hanrahan A, Lockett D, Scott J, Bleeker EV: Reducing Pain During Vaccine Injections: Clinical Practice Guideline. *CMAJ*.150391; Aug, 2015,doi:10.1503
27. Wyer PC, Umscheid CA, Wrights S, Silva SA, **Lang E**. Teaching Evidence Assimilation for Collaborative Health Care (TEACH) 2009-2014: Building Evidence-Based Capacity within

- Health Care Provider Organizations. [EGEMS \(Wash DC\)](#). 2015 Jul 6;3(2):1165. doi: 10.13063/2327-9214.1165. eCollection 2015
28. McClurg C, Powelson S, **Lang E**, Aghajafari F, Edworthy S, Evaluating effectiveness of small group information literacy instruction for Undergraduate Medical Education students using a pre- and post-survey study design., *Health Info Libr J*. 2015 Jun 03;32(2):120-30. PubMed PMID: 25809567
 29. Wyer PC, Umscheid CA, Wright S, Silva SA, **Lang E**, Teaching Evidence Assimilation for Collaborative Health Care (TEACH) 2009-2014: Building Evidence-Based Capacity within Health Care Provider Organizations. 2015 Jun 01.
 30. Scheuermeyer FX, Grunau BE, Findlay T, Grafstein E, Christenson J, **Lang E**, Rowe B, Ho K. Speed and accuracy of text-messaging emergency department electrocardiograms from a small community hospital to a provincial referral center. *J Telemed Telecare*. 2015 May 29. pii: 1357633X15587626.
 31. Rusconi AM, Bossi I, Lampard JG, Szava-Kovats M, Bellone A, **Lang E**, Early goal-directed therapy vs usual care in the treatment of severe sepsis and septic shock: a systematic review and meta-analysis., *Intern Emerg Med*. 2015 May 18. PubMed PMID: 25982917
 32. Lee J, Sirois MJ, Moore L, Perry J, Daoust R, Griffith L, Worster A, **Lang E**, Emond M, Return to the ED and hospitalisation following minor injuries among older persons treated in the emergency department: predictors among independent seniors within 6 months., *Age Ageing*. 2015 May 07. PubMed PMID: 25944869
 33. McGowan J, Muratov S, Tsepke A, Issina A, Slawewski E, **Lang E**. Clinical practice guideline were adapted and implemented meeting country specific requirements - the example of Kazakhstan. *J Clin Epidemiol* May 7 2015.
 34. Thiruganasambandamoorthy V, Taljaard M, Stiell IG, Sivilotti ML, Murray H, Vaidyanathan A, Rowe BH, Calder LA, **Lang E**, McRae A, Sheldon R, Wells GA, Emergency department management of syncope: need for standardization and improved risk stratification., *Intern Emerg Med*. 2015 Apr 30. PubMed PMID: 25918108
 35. Cheng A, Lockey A, Bhanji F, Lin Y, Hunt EA, **Lang E**. The use of high-fidelity manikins for advanced life support training-A systematic review and meta-analysis. *Resuscitation*. 2015 Apr 14. pii: S0300-9572(15)00152-5. doi: 10.1016/j.resuscitation.2015.04.004. [Epub ahead of print].
 36. Harris D, Hall C, Lobay K, McRae A, Monroe T, Perry J, Shearing A, Wollam G, Goddard T, **Lang E**. Canadian Association of Emergency Physicians position statement on Acute Ischemic Stroke. *CJEM*. 2015 March;17(02):217-26.
 37. Berthelot S, **Lang ES**, Quan H, Stelfox HT. What are emergency-sensitive conditions? A survey of Canadian emergency physicians and nurses. *CJEM*. 2015;17(2):154-160.
 38. McClurg C, Powelson S, **Lang E**, Aghajafari F, Edworthy S. Evaluating effectiveness of small group information literacy instruction for Undergraduate Medical Education students using a pre- and post-survey study design. *Health Info Libr J*. 2015 Mar 23.
 39. Rowe BH, Singh M, Villa-Roel C, Leiter LA, Hramiak I, Edmonds ML, **Lang E**, Sivilotti M, Scheuermeyer F, Worster A, Riley J, Afilalo M, Stiell I, Yale JF, Woo VC, Campbell S; Canadian Association of Emergency Physicians Research Consortium. Acute management and outcomes of patients with diabetes mellitus presenting to canadian emergency departments with hypoglycemia. *Can J Diabetes*. 2015 Feb;39(1):55-64. doi: 10.1016/j.jcjd.2014.04.001. Epub 2014 Aug 29.
 40. Hohl CM1, Wickham ME, Sobolev B, Perry JJ, Sivilotti ML, Garrison S, **Lang E**, Brasher P, Doyle-Waters MM, Brar B, Rowe BH, Lexchin J, Holland R. The Effect of Early in-Hospital Medication Review on Health Outcomes: A Systematic Review. *Br J Clin Pharmacol*. 2015 Jan 7. doi: 10.1111/bcp.12585.

41. Rowe BH, Villa-Roel C, Majumdar SR, Abu-Laban RB, Aaron SD, Stiell IG, Johnson J, Senthilselvan A; AIR Investigators; AIR Investigators. Rates and Correlates of Relapse Following ED Discharge for Acute Asthma: A Canadian 20-Site Prospective Cohort Study. *Chest*. 2015 Jan 1;147(1):140-9. doi: 10.1378/chest.14-0843.
42. Kamal N, Benavente O, Boyle K, Buck B, Butcher K, Casaubon LK, Côté R, Demchuk AM, Deschaintre Y, Dowlatshahi D, Gubitz GJ, Hunter G, Jeerakathil T, Jin A, **Lang E**, Lanthier S, Lindsay P, Newcommon N, Mandzia J, Norris CM, Oczkowski W, Odier C, Phillips S, Poppe AY, Saposnik G, Selchen D, Shuaib A, Silver F, Smith EE, Stotts G, Suddes M, Swartz RH, Teal P, Watson T, Hill MD. Good is not Good Enough: The Benchmark Stroke Door-to-Needle Time Should be 30 Minutes. *Can J Neurol Sci*. 2014 Nov;41(6):694-6. doi: 10.1017/cjn.2014.41. Epub 2014 Oct 20.
43. Crowder K, Jones T, Wang D, Clark S, McMeekin J, Andruchow J, **Lang E**, McRae A. 309 Operational Impact and Patient Outcomes Following Implementation of High-Sensitivity Troponin Testing in Three Urban Emergency Departments. *Ann Emerg Med*. 2014 Oct;64(4):S110.
44. Bayat Z, **Lang E**. Guidelines helping clinicians make the GRADE. *Intern Emerg Med*. 2014 Sep 10.
45. Richardson D, Oswald A, Chan M-K, **Lang ES**, Harvey BJ. The Draft CanMEDS 2015-Milestones Guide, scholar section. September, 2014.
46. Seadon S, **Lang E**. Clopidogrel with aspirin versus aspirin alone in prevention of stroke following transient ischemic attack or acute minor stroke. *CJEM*. 2014 Aug;16:38-40.
47. **Lang E**. In suspected PE, an age-adjusted d-dimer cutpoint improved ability to exclude PE. *Ann Intern Med*. 2014 Jul 15;161(2):JC13.
48. Netherton SJ, Lonergan K, Wang D, McRae A, **Lang E**. Computerized physician order entry and decision support improves emergency department analgesic ordering for renal colic. *Am Emerg Med*. 2014 May 12; S0735-6757(14)00319-2
49. Bond CM, Freiheit EA, Podruzny L, Kingsly AA, Wang D, Davenport J, Gutscher A, Askin C, Taylor A, Lee V, Choo Q, **Lang ES**. The emergency to home project: impact of an emergency department care coordinator on hospital admission and emergency department utilization among seniors. *International Emerg Med J*. 2014 May 7;7:18.
50. Slawecki E, Campbell P, **Lang E**, McGowan J, Muratov S. A pragmatic approach to the adaptation and implementation of internationally developed clinical practice guidelines for Kazakhstan. *The Lancet Global Health*. 2014 May 14; 2(S14)
51. Jervis A, **Lang E**. Does Aminophylline Improve Survival for Out-of-Hospital Bradyasystolic Arrests in Adults?. *Ann Emerg Med*. 2014 Apr 16. S0196-0644(14)00213-3
52. **Lang E**. ACP Journal Club. 4F-PCC was noninferior to plasma in patients with acute major bleeding who needed urgent VKA reversal. *Ann Intern Med J*. 2014 Apr 15;160(8):JC6.
53. Berthelot S, **Lang ES**, Quan H, Stelfox HT; Panel on Emergency-Sensitive Conditions (PESC). Identifying emergency-sensitive conditions for the calculation of an emergency care inhospital standardized mortality ratio. *Ann Emerg Med*. 2014 Apr;63(4):418-24.e2.
54. Bulger EM, Snyder D, Schoelles K, Gotschall C, Dawson D, **Lang E**, Sanddal ND, Butler FK, Fallat M, Taillac P, White L, Salomone JP, Seifarth W, Betzner MJ, Johannigman J, McSwain N Jr. An evidence-based prehospital guideline for external hemorrhage control: American College of Surgeons Committee on Trauma. *Prehosp Emerg Care*. 2014 Apr-Jun; 18(2):163-73.
55. Thiruganasambandamoorthy V, Stiell IG, Sivilotti ML, Murray H, Rowe BH, **Lang E**, McRae A, Sheldon R, Wells GA. Risk stratification of adult emergency department syncope patients to predict short-term serious outcomes after discharge (RiSEDS) study. *BMC Emerg Med*. 2014 Mar 14;14:8.
56. Taylor J, McLaughlin K, McRae A, **Lang E**, Anton A. Use of prehospital ultrasound in North America: a survey of emergency medical services medical directors. *BMC Emerg Med*. 2014 Mar 1;14:6.

57. Stiell IG, Clement CM, Aaron SD, Rowe BH, Perry JJ, Brison RJ, Calder LA, **Lang E**, Borgundvaag B, Forster AJ, Wells GA. Clinical Characteristics Associated With Increased Risk Of Adverse Events In Patients Presenting To The Emergency Department With Exacerbation Of Chronic Obstructive Pulmonary Disease: A Prospective Cohort Study. *CMAJ*. 2014 Apr 1;186(6):E193-204. doi: 10.1503/cmaj.130968. Epub 2014 Feb 18.
58. O Langeron, A Birenbaum, F Le Saché, M Raux, A Fudickar, B Bein, EP Rivers, M Katranji, KA Jaehne, S Brown, G Abou Dagher, C Cannon, V Coba, C Staikou, A Paraskeva, I Karmanioulou, A Mani, K Chondrogiannis, C Dragoumanis, I Pneumatikos, E Futier, JM Constantin, S Jaber, D Orbegozo Cortes, H Njimi, AM Dell'Anna, FS Taccone, C Guervilly, S Hraiech, V Gariboldi, F Xeridat, S Dizier, R Toesca, JM Forel, M Adda, D Grisoli, F Collart, A Roch, L Papazian, D Whalley, C Skappak, **E Lang**, M Cecconi, N Arulkumaran, J Kilic, C Ebm, A Rhodes. *A Journal on Anesthesiology, Resuscitation, Analgesia and Intensive Care. Minerva Anestesiologica*. 2014-Mar. 80 (3), 293-306
59. **Lang E**. ACP Journal Club. In out-of-hospital cardiac arrest, mechanical CPR did not improve survival compared with manual CPR. *Ann Intern Med*. 2014 Feb 18;160(4):JC5
60. Cheng AL, **Lang ES**. Pseudopancreatitis on computed tomography in a patient with isolated blunt head trauma: a case report. *J Med Case Rep*. 2014 Feb 16;8:56.
61. Brick C, Lowes J, Lovstrom L, Kokotilo A, Villa-Roel C, Lee P, **Lang E**, Rowe BH. The impact of consultation on length of stay in tertiary care emergency departments. *Emerg Med J*. 2014 Feb;31(2):134-8.
62. Shah MI, Macias CG, Dayan PS, Weik TS, Brown KM, Fuchs SM, Fallat ME, Wright JL, **Lang ES**. An Evidence-based Guideline for Pediatric Prehospital Seizure Management Using GRADE Methodology. *Prehosp Emerg Care*. 2014;18 Suppl 1:15-24
63. Gausche-Hill M, Brown KM, Oliver ZJ, Sasson C, Dayan PS, Eschmann NM, Weik TS, Lawner BJ, Sahni R, Falck-Ytter Y, Wright JL, Todd K, **Lang ES**. An Evidence-based Guideline for prehospital analgesia in trauma. *Prehosp Emerg Care*. 2014;18 Suppl 1:25-34
64. Thomas SH, Brown KM, Oliver ZJ, Spaite DW, Lawner BJ, Sahni R, Weik TS, Falck-Ytter Y, Wright JL, **Lang ES**. An Evidence-based Guideline for the air medical transportation of prehospital trauma patients. *Prehosp Emerg Care*. 2014;18 Suppl 1:35-44.
65. Brown KM, Macias CG, Dayan PS, Shah MI, Weik TS, Wright JL, **Lang ES**. The development of evidence-based prehospital guidelines using a GRADE-based methodology. *Prehosp Emerg Care*. 2014;18 Suppl 1:3-14.
66. Ashlea R Wilmott, Graham C Thompson, **Eddy Lang**, Susan Powelson, Abel Wakai, Ben Vandermeer, Ronan O'Sullivan. Atropine therapy versus no atropine therapy for the prevention of adverse events in paediatric patients undergoing intubation. *The Cochrane Library*. Cochrane Anaesthesia Group. Published Online: 5 JAN 2014. DOI: 10.1002/14651858.CD010898
67. Yergens D, Fradgley E, Aiyar R, **Lang E**, Rowe BH, Ghali WA. An environmental scan of medical assessment units in Canada. *Healthc Q*. 2014;17(4):28-33.
68. Lee PA, Rowe BH, Innes G, Grafstein E, Vilneff R, Wang D, van Rheenen S, **Lang E**. Assessment of consultation impact on emergency department operations through novel metrics of responsiveness and decision-making efficiency. *CJEM*. 2013;15(0):1-8.
69. Dowlatshahi D, Wasserman JK, Butcher KS, Bernbaum ML, Cwinn AA, Giulivi A, **Lang E**, Poon MC, Tomchishen-Pope J, Sharma M, Coutts SB. Stroke prenotification is associated with shorter treatment times for warfarin-associated intracerebral hemorrhage. *Cerebrovasc Diseases* 2013 36(5-6):383-7
70. Mollenhauer B, Trautmann E, Sixel-Döring F, Wicke T, Ebentheuer J, Schaumburg M, **Lang E**, Focke NK, Kumar KR, Lohmann K, Klein C, Schlossmacher MG, Kohnen R, Friede T, Trenkwalder C. Nonmotor and diagnostic findings in subjects with de novo Parkinson disease of the DeNoPa cohort. *Neurology*. 2013 Oct 1;81(14):1226-34.
71. Pandya A, **Lang E**. Valsalva Maneuver for Termination of Supraventricular Tachycardia. *Annals of Emergency Medicine*. 2013 Aug 7. [Epub ahead of print]

72. Syed S, Wang D, Goulard D, Rich T, Innes G, **Lang E**. Computer order entry systems in the emergency department significantly reduce the time to medication delivery for high acuity patients. *International Journal of Emergency Medicine*. 2013 Jul 5;6(1):20.
73. Lee PA, Rowe BH, Innes G, Grafstein E, Vilneff R, Wang D, van Rheenen S, **Lang E**. Assessment of consultation impact on emergency department operations through novel metrics of responsiveness and decision-making efficiency. *CJEM*. 2013;15(0):1-8.
74. Mustafa RA, Santesso N, Brozek J, Akl EA, Walter SD, Norman G, Kulasegaram M, Christensen R, Guyatt GH, Falck-Ytter Y, Chang S, Murad MH, Vist GE, Lasserson T, Gartlehner G, Shukla V, Sun X, Whittington C, Post PN, **Lang E**, Thaler K, Kunnamo I, Alenius H, Meerpohl JJ, Alba AC, Nevis IF, Gentles S, Ethier MC, Carrasco-Labra A, Khatib R, Nesrallah G, Kroft J, Selk A, Brignardello-Petersen R, Schünemann HJ. The GRADE approach is reproducible in assessing the quality of evidence of quantitative evidence syntheses. *Journal of Clinical Epidemiology*. 2013 Jul;66(7):736-42
75. Lazo-Langner A, **Lang ES**, Douketis J. Clinical review: Clinical management of new oral anticoagulants: a structured review with emphasis on the reversal of bleeding complications. *Critical Care*. 2013 Jun 17;17(3):230.
76. McGowan J, Muratov S, Montoya D, Foerster V, **Lang E**. An Initiative to Adapt Internationally Developed Clinical Practice Guidelines for the Republic of Kazakhstan: A Pragmatic Approach. Evidence Live, CEBM University of Oxford, March 2013.
77. Lampard JG, **Lang E**. Vasopressors for Hypotensive Shock. *Ann Emerg Med* 2013 Mar;61(3):351-2. doi: 10.1016/j.annemergmed.2012.08.028. Epub 2012 Sep 29
78. Lipp C, **Lang E**, Dhaliwal R. Analgesia in the ED: A GRADE-based Evaluation of Research Evidence and Recommendations for Practice. *Critical Care* 2013 Mar 19; 17(2):212
79. Curial M, **Lang E**, Nath ES. Novel antiplatelet agent use for Acute Coronary Syndrome in the Emergency Department; a review. *Cardiology Research and Practice* 2013; 2013:127270
80. Shah MN, McDermott R, Gillespie SM, Philbrick EB, Nelson D, **Lang E**. Potential of telemedicine to provide acute medical care for adults in senior living communities. *Academic Emergency Medicine: Official Journal of the Society for Academic Emergency Medicine*. 2013 Feb;20(2):162-8.
81. Jones SR, **Lang ES**. Is Subcutaneous Sumatriptan an Effective Treatment for Adults Presenting to the Emergency Department With Acute Migraine Headache? *Annals of Emergency Medicine*. 2013 Feb 20. doi:10.1016/j.annemergmed.2013.02.001
82. Stiell IG, Clement CM, Brison RJ, Rowe BH, Borgundvaag B, Aaron SD, **Lang E**, et al. A Risk Scoring System to Identify Emergency Department Patients with Heart Failure at High Risk for Serious Adverse Events. *Acad Emerg Medicine* 2013 Jan; 20(1):17-26
83. Linkins LA, Bates SM, **Lang E**, et al. Selective D-dimer testing for diagnosis of a first suspected episode of deep venous thrombosis: a randomized trial. *Ann Intern Med*. 2013 Jan 15; 158(2):93-100
84. Rogenstein C, Kelly A-M, Mason S, Schneider S, **Lang E**, Clement CM, Stiell IG. An international view of how recent-onset atrial fibrillation is treated in the emergency department: *Acad Emerg Med* 2012 Nov;19(11):1255-60
85. Spencer FA, Iorio A, You J, Murad MH, Schunemann HJ, Vandvik PO, Crowther MA, Pottie K, **Lang ES**, et al. Uncertainties in baseline risk estimates and confidence in treatment effects. *BMJ* 2012 Nov 14;345:e7401
86. Aboulsoud S, Huckson S, Wyer P, **Lang E**. Survey of preferred guideline attributes: what helps to make guidelines more useful for emergency health practitioners? *Int J Emerg Med* 2012 Nov 10;5(1):42
87. Blyth L, Atkinson P, Gadd K, **Lang E**. Bedside Focused Echocardiography as Predictor of Survival in Cardiac Arrest Patients: A Systematic Review. *Acad Emerg Med* 2012 Oct; 19(10):1119-1126
88. **Lang E**, Johnson D. How does "knowledge translation" affect my clinical practice? *Canadian Journal of Emergency Medicine*. *Can J Emerg Med* 2012; 14(3):182-6
89. Lansberg MG, O'Donnell MJ, Khatri P, **Lang ES**, Nguyen-Huynh MN, Schwartz NE, Sonnenberg FA, Schulman S, Vandvik PO, Spencer FA, Alonso-Coello P, Guyatt GH,

- Akl EA; American College of Chest Physicians. Antithrombotic and thrombolytic therapy for ischemic stroke: Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. *Chest*. 2012 Feb;141(2 Suppl):e601S-36S. doi: 10.1378/chest.11-2302.
90. Blecher GE, Stiell IG, Clement CM, Brison RJ, Rowe BR, Borgundvaag B, Langan T, **Lang E**, et al. Use of Rate Control Medication Before Cardioversion of Recent-Onset Atrial Fibrillation or Flutter in the Emergency Department is Associated with Reduced Success Rates. *Can J Emerg Med* 2012;14(3):169-77
 91. Gerdung C, Dowling S, **Lang E**. Review of the CATCH Study: a clinical decision rule for the use of computed tomography in children with minor head injury. *Can J Emerg Med* 2012;14(4):243-7
 92. Ross M, **Lang E**. Does Antibiotic Prophylaxis Prevent Meningitis in Patients With Basilar Skull Fracture? *Ann Emerg Med* 2012; May 24
 93. McIntyre L, Fergusson DA, Rowe B, Cook DJ, Arabi Y, Bagshaw SM, Emond M, Finfer S, Fox-Robichaud A, Gray A, Green R, Herbet P, **Lang E**, et al. The PRECISE RCT: Evolution of an Early Septic Shock Fluid Resuscitation Trial. *Transfusion medicine reviews* 2012 Oct;26(4):333-341. Doi:10.1016/j.tmr.2011.11.003. Epub 2012 Jan 4
 94. Brulotte CA, **Lang ES**. Acute exacerbations of chronic obstructive pulmonary disease in the emergency department. *Emerg Med Clin North Am*. 2012 May;30(2):223-47
 95. Ali H, **Lang E**, Barkan A. Emergency department risk stratification in upper gastrointestinal bleeding. *Can J Emerg Med* 2012;14(1):45-9. PMID:22417958
 96. **Lang ES**, Spaite DW, Oliver ZJ, Gotschall CS, Swor RA, Dawson DE, Hunt RC. A national model for developing, implementing, and evaluating evidence-based guidelines for prehospital care. *Acad Emerg Med*. 2012 Feb;19(2):201-9.
 97. **Lang ES**. ACP Journal Club. The optimal HbA1c cutpoint to screen for diabetes in the emergency department was 6.0%. *Ann Intern Med*. 2012 Feb 21;156(4):JC2-11.
 98. Nathan Coxford R1, **Lang E**, Dowling S. Dopamine versus norepinephrine in the treatment of shock. *CJEM*. 2011 Nov;13(6):395-7. doi: 10.2310/8000.2011.110297.
 99. **Lang ES**, Worster A Getting the evidence straight in emergency diagnostics. *Acad Emerg Med*. 2011 Aug;18(8):797-9.
 100. Saude EJ, Lang ES, Ekwilanga P. Medical Management of Incomplete Miscarriage. *Ann Emerg Med* 2012;59(4):294-5. Epub 2011 Jul 23.
 101. **Lang E**. ACP Journal Club. Early treatment with tranexamic acid reduced bleeding death in patients with clinically important hemorrhage due to trauma. *Ann Intern Med*. ACP Journal Club 2011 Jul 19;155(2):JC1- 4.
 102. Quan S, Molodecky NA, Frolkis A, Proulx MC, **Lang E**, Myers RP, Storr M, Kaplan GG. Hospitalizations for Upper Gastrointestinal Bleeding Secondary to Peptic Ulcer Disease: A Population-Based Validation and Epidemiological Study. *Gastroenterology* 140(5) May 2011; S-730
 103. Mitchell J, **Lang E**. Evidence-based emergency medicine. Update: effect of thrombolysis in acute ischemic stroke. *Ann Emerg Med*. 2011 Mar;57(3):e16-7.
 104. Hall C, **Lang E**. Evidence-based emergency medicine. Is MRI more accurate than CT in patients with suspected acute stroke? *Ann Emerg Med*. 2011 Jul;58(1):99-100. Epub 2010 Dec 22.
 105. Ross M, Brown M, McLaughlin K, Atkinson P, Thompson J, Powelson S, Clark S, **Lang E**. Emergency physician-performed ultrasound to diagnose cholelithiasis: a systematic review. *Acad Emerg Med*. 2011 Mar;18(3):227-35.
 106. Stiell IG, Clement CM, Brison RJ, Rowe BH, Borgundvaag B, Langan T, **Lang E**, Magee K, Stenstrom R, Perry JJ, Birnie D, Wells GA. Variation in management of recent-onset atrial fibrillation and flutter among academic hospital emergency departments. *Ann Emerg Med*. 2011 Jan;57(1):13-21.
 107. McLeod B, Zaver F, Avery C, Martin DP, Wang D, Jessen K, Lang ES. Matching capacity to demand: a regional dashboard reduces ambulance avoidance and improves accessibility of receiving hospitals. *Acad Emerg Med*. 2010 Dec;17(12):1383-9.

108. Latulippe M, **Lang ES**. Update: Use of platelet glycoprotein IIb/IIIa inhibitors in patients with unstable angina and non-ST-segment elevation myocardial infarction. *Ann Emerg Med*. 2010 Nov;56(5):e1-2.
109. Boyko M, **Lang E**. Evidence-based emergency medicine. Is Therapeutic Hypothermia for Closed Head Trauma Beneficial? *Ann Emerg Med*. 2011 May;57(5):537-8. doi: 10.1016/j.annemergmed.2010.08.030. Epub 2010 Oct 29.
110. **Lang ES**, Wyer P, Tabas JA, Krishnan JA. Educational and research advances stemming from the Academic Emergency Medicine consensus conference in knowledge translation. *Acad Emerg Med*. 2010 Aug;17(8):865-9.
111. Unger B, Afilalo M, Boivin JF, Bullard M, Grafstein E, Schull M, **Lang E**, Colacone A, Soucy N, Xue X, Segal E. Development of the Canadian Emergency Department Diagnosis Shortlist. *Canadian Journal of EM (CJEM)*. 2010 Jul;12(4):311-9.
112. **Lang ES**. ACP Journal Club. Review: therapeutic hypothermia improves neurologic outcome and survival to discharge after cardiac arrest. *Ann Intern Med*. 2010 Feb 16;152(4):JC-22.
113. Patocka C, Turner J, **Lang E**. Quantitative resuscitation in sepsis. *CJEM*. 2010 Mar;12(2):150-3.
114. **Lang ES**, Browning K. Ventricular tachyarrhythmias (out-of-hospital cardiac arrests). *Clin Evid (Online)*. 2010 Dec 21;2010. pii: 0216.
115. **Lang ES**, Montori VM. Evidence-based emergency medicine/editorial. Contrasting agendas: science for the bedside or water in the wind? *Ann Emerg Med*. 2009 Jul;54(1):123-5. doi: 10.1016/j.annemergmed.2009.01.030. Epub 2009 Mar 21.
116. Venugopal R, **Lang E**, Doyle K, Sinclair D, Unger B, Afilalo M. A workshop to improve workflow efficiency in emergency medicine. *CJEM* November 2008.
117. Azzam MH, **Lang E**, Segal E. Terminating resuscitation for out-of-hospital cardiac arrest *CJEM*. 2008 Sep;10(5):474-7.
118. Rowe BH, Villa-Roel c, Sivilotti M, **Lang E**, Bjug Borgundvaag B, Andrew Worster A, Allan Walker A, Ross S. Relapse after Emergency Department Discharge for Acute Asthma (Vol 15 issue 8, Aug. 2008p 709-717)
119. Brahm J, **Lang E**, Meyers C. Ondansetron for Pediatric Gastroenteritis. 2008 Jul;10(4):383-5
120. **Lang E**. Intravenous proton pump inhibitors prior to endoscopy in suspected upper gastrointestinal bleeding. *McGill Emergency Medicine Journal Club Group*. *CJEM*. 2008 May;10(3):244-6.
121. **Lang E**. Technology-driven or Patient Outcome–driven Use of Emergency Department Ultrasound for Deep Vein Thrombosis Assessment. *Academic Emergency Medicine*, June 2008.
122. **Lang E**. Emergency Care Knowledge Translation Working Group: Finding one's way in translating evidence into practice. *Ann Emerg Med*. 2008 Jun;51(6):791-2.
123. Anderson DR, Kahn SR, Rodger MA, Kovacs MJ, Morris T, Hirsch A, **Lang E**, Stiell I, Kovacs G, Dreyer J, Dennie C, Cartier Y, Barnes D, Burton E, Pleasance S, Skedgel C, O'Rourke K, & Wells PS. Computed Tomographic Pulmonary Angiography vs. Ventilation-Perfusion Lung Scanning in Patients with Suspected Pulmonary Embolism: A Randomized Controlled Trial. *Journal of American Medical Association*, December 2007; 298(23): 2743-2753.
124. **Lang E**, Wyer PC, & Eskin B. Executive Summary: Knowledge Translation in Emergency Medicine: Establishing a Research Agenda and Guide Map for Evidence Uptake. *Academic Emergency Medicine Journal*, November 2007; 14(11): 915-918.
125. **Lang E**, Wyer PC, Eskin B, Tselios C, Afilalo M, & Adams JG. The Development of the Academic Emergency Medicine Consensus Conference Project on Knowledge Translation. *Academic Emergency Medicine Journal*, November 2007; 14(11): 919-923.
126. Dayan PS, Osmond M, Kuppermann N, **Lang E**, Klassen T, Johnson D, Strauss S, Hess E, Schneider S, Afilalo M, & Pusic M. Development of the Capacity Necessary to Perform and Promote Knowledge Translation Research in Emergency Medicine. *Academic Emergency Medicine Journal*, November 2007; 14(11): 978-983.

127. Brehaut JC, Hamm R, Majumdar S, Papa F, Lott A, & **Lang E**. Cognitive and Social Issues in Emergency Medicine Knowledge Translation: A Research Agenda. *Academic Emergency Medicine Journal*, November 2007; 14(11): 984-990.
128. Compton S, **Lang E**, Richardson TM, Hess E, Green J, Meurer W, Stanley R, Dunne R, Scott-Findlay S, Khare RK, & Grimshaw J. Knowledge Translation Consensus Conference: Research Methods. *Academic Emergency Medicine Journal*, November 2007; 14(11): 991-995.
129. **Lang ES**. An escalating higher energy regimen was better than a fixed lower energy regimen for defibrillation in out of hospital cardiac arrest. *Evid Based Med*. 2007 Oct;12(5):142.
130. **Lang E**. A clinical risk score identified high-risk patients with chest pain but no ST-segment deviation and normal troponin levels. *ACP J Club*. 2007 Jul-Aug;147(1):25.
131. Rowe BH, Campbell SG, Boudreaux ED, Colman I, Abu-Laban RB, Sivilotti MLA, Clark S, Camargo Jr. CA & Site Investigator (**Lang E**). Community-acquired Pneumonia in North American Emergency Departments: Drug Resistance and Treatment Success with Clarithromycin. *Academic Emergency Medicine Journal*, July 2007; 14(7): 607-615
132. **Lang E**, Wyer PC, & Haynes BR. Knowledge Translation: Closing the Evidence-to-practice Gap. *Annals of Emergency Medicine Journal*, March 2007; 49(3): 355-363.
133. Afilalo M, **Lang E**, Léger R, Xue X, Colacone A, Soucy N, Vandal A, Boivin JF, & Unger B. Impact of a Standardized Communication System on Continuity of Care between Family Physicians and the Emergency Department. *Canadian Journal of Emergency Medicine*, March 2007; 9(2): 79-86.
134. **Lang ES**. The San Francisco Syncope Rule was useful for stratifying risk in emergency department patients with syncope. *Evid Based Med*. 2006 Dec;11(6):186.
135. **Lang E**, & Andruchow J. Evidence-based Emergency Medicine. What is the Preferred First-line Therapy for Status Epilepticus? *Annals of Emergency Medicine Journal*, July 2006; 48(1): 98-100.
136. **Lang E**, & Al Raisi M. Ventricular Tachyarrhythmias (Out of Hospital Cardiac Arrests). *Clinical Evidence Journal*, June 2006; (15): 295-300.
137. Strayer RJ, **Lang ES**. Evidence-based Emergency Medicine/Systematic Review Abstract. Does This Patient Have A Torn Meniscus or Ligament of the Knee? *Annals of Emergency Medicine Journal*, May 2006; 47(5): 499-501.
138. **Lang E**, Afilalo M, Vandal A, Boivin JF, Xue X, Colacone A, Léger R, Shrier I, & Rosenthal S. Impact of an Electronic Link between the Emergency Department and Family Physicians: A Randomized Controlled Trial. *Canadian Medical Association Journal*, January 2006; 174(3): 313-318.
139. Pearson E, **Lang E**, Colacone A, Farooki N, Afilalo M. Successful implementation of a combined pneumococcal and influenza vaccination program in a Canadian emergency department. *CJEM*. 2005 Nov;7(6):371-7.
140. **Lang ES**. Evidence-based emergency medicine/systematic review abstract. Treatment of carotid artery dissection. *Ann Emerg Med*. 2005 Sep;46(3):294-5.
141. Guttman A, Afilalo M, Guttman R, Colacone A, Robitaille C, **Lang E**, Rosenthal S. An emergency department-based nurse discharge coordinator for elder patients: does it make a difference? *Acad Emerg Med*. 2004 Dec;11(12):1318-27.
142. **Lang ES**. Review: transfer for primary angioplasty is better than immediate thrombolysis in acute myocardial infarction. *ACP J Club*. 2004 Jul-Aug;141(1):1.
143. Peera MA, **Lang ES**. Delayed diagnosis of splenic rupture following minor trauma: beware of comorbid conditions. *CJEM*. 2004 May;6(3):217-9.
144. Hohl CM, Mitelman BY, Wyer P, **Lang E**. Should emergency physicians use B-type natriuretic peptide testing in patients with unexplained dyspnea? *CJEM*. 2003 May;5(3):162-5.
145. Cardin S1, Afilalo M, **Lang E**, Collet JP, Colacone A, Tselios C, Dankoff J, Guttman A. Intervention to decrease emergency department crowding: does it have an effect on return visits and hospital readmissions? *Ann Emerg Med*. 2003 Feb;41(2):173-85.

146. **Lang ES**, Afilalo M. Evidence-based emergency medicine. Use of platelet glycoprotein IIb/IIIa inhibitors in patients with unstable angina and non-ST-segment elevation myocardial infarction. *Ann Emerg Med.* 2002 Nov;40(5):518-20.
147. Lee CQ, Turner J, **Lang E**. Should survivors of out-of-hospital cardiac arrest be treated with hypothermia? *CJEM.* 2002 Sep;4(5):344-7.
148. Rowe BH1, **Lang ES**. Evidence-based emergency medicine/systematic review abstract. Use of low molecular weight heparins in patients with acute venous thromboembolism. *Ann Emerg Med.* 2002 May;39(5):555-7.
149. **Lang ES**. Evidence-based emergency medicine. Use of thrombolytic therapy in patients with acute ischemic stroke. *Ann Emerg Med.* 2002 Mar;39(3):296-8.

| |
|-------------------------|
| Books and Book Chapters |
|-------------------------|

- 2015: Chapter name: Chapter 4: Evidence-based medicine: Finding the knowledge gap. Author: Dr. Eddy Lang. Co-author: Bayat. Book name: Practical advice for doing research in the emergency and acute care setting: Making order out of chaos." Authors names: MP Wilson, KZ Guluma, SR Hayden. Oct 2015. Wiley-Blackwell. ISBN: 978-1-118-64348-8
- 2014: Chapter name: Vertebrobasilar Atherothrombotic Disease. EMedicine - Medscape. Author: Dr, Eddy Lang, coauthors: Dr. Ryan Wilkie and Dr. Marc Afilalo, Sep 2014.
- 2011: Research Funding and Other Resources. The Royal College of Physicians and Surgeons of Canada Resident Research Guide 2011.
- 2011: Harvey BJ, Lang ES, Frank JR (Editors). The Research Guide: A Premier for Residents, other Health Care Trainees, and Practitioners. Royal College of Physicians and Surgeons of Canada. Ottawa ON, September 2011.
- 2009: First Co-editor. The Textbook of Evidence-Based Emergency Medicine. ENT and Cardiology Sections. Wiley Publications. Primary editor: Dr. Brain Rowe.
- 2009: Chapter author or co-author. The Textbook of Evidence- Based Emergency Medicine. Chapters: Knowledge Translation, a Primer for Emergency Physicians (lead author), Deep Vein Thrombosis (first author) Approach to Chest Pain (co-author), Ventricular and Supraventricular Tachycardias.
- 2008: Rowe B, Lang ES, Brown MD, Houry D, Newman DH, Wyer PC. Evidence-Based Emergency Medicine. BMJ Books. November 2008.
- 2007: Chapter: Les principes, limites et applications de la sémiologie de la douleur thoracique à l'urgence. Co-authored with Dr. Alain Vadeboncoeur. Douleurs Thoraciques a l'urgence. Monographie de la Société Francophone de Médecine d'Urgence.
- 2006: Lang E, & Al Raisi M. Ventricular Tachyarrhythmias (Out of Hospital Cardiac Arrests). *Clinical Evidence*, June 2006; (15): 295-300. Updated 2008.
- 2006: Lang E, & Issley S. Toxicity, Ammonia from Emergency Medicine/Toxicology. www.emedicine.com. Chapter co- author.
- 2006: Lang E, & Segal E. Toxicity, Chlorine Gas from Emergency Medicine/Toxicology www.emedicine.com. Chapter co-author.
- 2005: Lang E, & Afilalo M. Vertebrobasilar Atherothrombotic Disease From Emergency Medicine/Neurology. www.emedicine.com. Chapter author.

2005: Lang E, & Afilalo M. Dissection, Vertebral Artery from Emergency Medicine/Cardiovascular. www.emedicine.com. Chapter author.

Technical Reports

1. Canadian Health Services Research Foundation Research Report. The Impact of a Standardized Information System Between the Emergency Department and the Primary Care Network: Effects on Continuity and Quality of Care. Dr. Marc Afilalo, Dr. Eddy Lang, Dr. Jean François Boivin

Conference Presentations

2017

1. Eddy Lang. Choosing Wisely for Emergency Medicine: You Mean I Wasn't? Western Emergency Department Operations Conference 2017: Field of Dreams? The Precarious Path to the No Wait ED. Saskatoon, Sask. April 2017.

2016

1. Ian Blanchard, Alka Patel, Dan Lane, Amy Couperthwaite, Dirk Chisholm, Dean Yergens, Diane Lorenzetti, Gerald Lazarenko, Eddy Lang, Christopher Doig, William Ghali, Alberta Health Services, University of Calgary. Systematic review of the association between EMS time factors and survival. 2017 NAEMSP.

2016

2. Ian E. Blanchard, Nathan Charlton, Andrew MacPherson, Howard Mell, Christine Neilson, Eddy S. Lang, David Zideman, Eunice Singletary, Alberta Health Services and University of Calgary. First aid and first responder treatment of asthmatics having difficulty breathing with bronchodilators: A systematic review using GRADE methodology. 2016 NAEMSP.
3. Ian E. Blanchard, Jae-Hyug Woo, Richard N. Bradley, David Lightfoot, Eddy Lang, Eunice Singletary, David Zideman, Alberta Health Services and University of Calgary. 2016 NAEMSP.
4. Ian E. Blanchard, Emmy De Buck, Jeff Woodin, Eddy Lang, David Zideman, Eunice Singletary, Alberta Health Services and University of Calgary. Wet vs. dry burn dressings in the first aid setting: A systematic review using GRADE methodology. 2016 NAEMSP.

2015

5. Lang E. A potpourri of cardiology cases. Oral presentation at the 31st Annual Emergency Medicine for rural hospitals conference, University of Calgary. Banff, AB. Jan 24, 2015.

2014

6. Kline JA, Lang ES, Tabas J, Kuppermann N. Knowledge Translation Workshop: Stop the Madness: Reducing Unnecessary Radiation in Pediatric, Pulmonary Embolism and Trauma Patients – ACEP scientific assembly, Chicago, Oct 27 2014.
7. Lang E. rTPA après trois heures ? 31e Congrès scientifique de médecine d'urgence – AMUQ, Montreal, QC. October 21 2014

8. Lang E. « Choisir avec soin ». Quelles sont les implications pour la médecine d'urgence ? 31e Congrès scientifique de médecine d'urgence – AMUQ, Montreal, QC. October 24 2014.
9. Pat A, Liu YS, Brown N, Ng M, Pytka S, McRae A, Lang E. The epidural blood patch is an under-utilized treatment for post-dural puncture headache in the emergency department. Oral presentation at CAEP Annual conference, Ottawa June 2014. CJEM 2014:16(S):33.
10. Douketis J, Ezekowitz J, Ghosh I, Lang E. On the Front Lines of Atrial Fibrillation Management: Guiding Anticoagulant Therapy in the Emergency Room. Oral presentation CAEP Annual conference, Ottawa June 3 2014.
11. Lang ES, Traboulsi M, Welsh R, Morrin L, Stephenson F. Potentially Missed Opportunities to Diagnose ACS: Demographic and Clinical Features of Patients Seen and Discharged From an Emergency Department within 7 Days of Hospitalization for ACS. Oral presentation at CAEP Annual conference, Ottawa, June 4 2014. CJEM 2014:16(S):34.
12. Lang ES. The Troponin Confusion - Update on Chest Pain Risk-Stratification Literature. Oral presentation at CAEP Annual conference, Ottawa, June 4 2014.
13. Lang ES. Mining for Gold instead of Scooping Poop: How to make the most of chart review and other retrospective studies. University of Saskatchewan EM research day, May 28 2014.
14. Lang ES, Wyer P, Brown M, Seupaul R. Beyond Google: Information Mastery at the Point of Care in the Era of Evidence Syntheses: an E-classroom Experience. SAEM 2014 Annual meeting, Dallas May 14 2014.
15. Lang ES. Knowledge translation. Rio de Janeiro, 2104.

2013

16. Hall C, Lang E. Impact of an Emergency Department Care Coordinator on Hospital Admission and ED Utilization among seniors. ACEP annual meeting, Seattle WA, Oct 17 2013.
17. Lang ES. Evidence Based Clinical Practice Course Workshop. McMaster University Faculty Workshop. Hamilton ON, Jun 6 2013.
18. Sudbury I, Khory AS, Lang ES, McRae A. Lactate clearance for guiding the management of septic patients in the emergency department: a systematic review. Oral presentation at CAEP meeting. Vancouver BC, Jun 1 2013. CJEM 2013:15(S):18.
19. Minhas R, Vogelaar G, Wang D, Almansoori W, Lang ES, Blanchard I, Lazarenko G, McRae A. Evaluation of an emergency medical services treat-and-release protocol for out-of-hospital patients presenting with supraventricular tachycardia. Oral presentation at CAEP meeting, Vancouver BC, Jun 1 2013. CJEM 2013:15(S):17.
20. Brown GM, Lang ES, Patel K, Chung B, Dong S, Blouin D, Sherbino J, Hicks C, Bandiera G, Meyers C, Yoon P. A national faculty development needs assessment for Canadian academic emergency medicine. Oral presentation at CAEP meeting, Vancouver BC, Jun 1 2013. CJEM 2013:15(S):15.
21. Stiell IG, Clement CM, Brison RJ, Lang ES, Rowe BH, Borgundvaag B, Birnie D, Perry JJ, Eagles D, Dorian P, Redfearn DP, Wyse G, Wells GA. Correlates of 30-day adverse events for ED patients with recent-onset atrial fibrillation and flutter (RAFF). Oral presentation at CAEP meeting, Vancouver BC, Jun 1 2013. CJEM 2013:15(S):11.

22. Innes G, Wang D, Lang ES, Andruchow J, McRae A. Disposition of emergency department patients with acute pulmonary embolism in a Canadian health region. Oral presentation at CAEP meeting, Vancouver BC, Jun 1 2013. *CJEM* 2013;15(S):8.
23. McRae A, Lang ES, Li B, Liu M, Wang D, Bullard M, Holroyd BR, Rowe BH, Innes G. Safety of a system-wide intervention to address access block in 13 congested Alberta hospital EDs. Oral presentation at CAEP meeting, Vancouver BC, Jun 1 2013. *CJEM* 2013;15(S):6.
24. Lang ES, McRae A, Innes G, Holroyd BR, Bullard M, Andruchow J, Li B, Liu M, Rowe BH. Does regionalization make a difference? An analysis of the differential impact of the Alberta overcapacity initiatives. Oral presentation at CAEP meeting, Vancouver BC, Jun 1 2013. *CJEM* 2013;15(S):4.
25. Lang ES, Brown M, Fesmire F, Callaway C. Can we Trust Clinical Practice Guidelines? 2013 SAEM annual meeting, Atlanta GA, May 16 2013.
26. Lang E. An introduction to the GRADE methodology. Neonatal Resuscitation Working Group of ILCOR - EPIQ Conference Toronto. Feb 20 2013.
27. Lang ES. Bleeding Management in the Era of Novel Oral Anticoagulants and High Sensitivity Troponin, Boon or Bonanza for EM. Rural Emergency Physician Conference. Banff AB, Jan 27 2013.
28. Lang ES. High-sensitivity Troponin: Highly useful or highly confusing? Rural Emergency Physician Conference, Banff AB, Jan 26 2013

2012

29. Lang E. Updates in Acute Stroke; Evidence-Based Guidelines for Prehospital Care. Pan-Pacific Emergency Medicine Congress Oct 2012 Coex, Seoul, Korea.
30. Innes GD, McRae A, Holroyd B, Rowe B, Mercur L, Guebert N, Wang D, Scarlett J, Lang ES. Impact of a Provincial Overcapacity Protocol on Emergency Department Operations in 14 Centers.
31. McRae AD, Wang D, Blanchard IE, Almansoori W, Anton A, Lang E, Innes GD. A Time Flow Study To Establish Determinants of the EMS Offload Interval: Implications for Evaluation of EMS Operational Efficiency.
32. McRae AD, Wang D, Blanchard IE, Almansoori W, Anton A, Lang E, Innes GD. Upstream Relief: Benefits on EMS Offload Delay of a Provincial ED Overcapacity Protocol Aimed at Reducing ED Boarding.
33. Muratov S, Lang E, McGowan J, Foerster V, Montoya D, Rustemova K. Guideline Adaptation in Kazakhstan. G-I-N Conference Berlin August 2012
34. Innes GD, Wang D, Lang E, Jessen K, Goulard D, Guebert N, McRae A. Public online posting of emergency department and urgent care centre wait times: an evaluation of accuracy and impact on visit volumes. *Can J Emerg Med.* 2012;14(5)
35. Innes GD, Lonergan K, Wang D, McRae A, Lang E. Program regionalization is associated with differential management patterns for patients with renal colic. *Can J Emerg Med.* 2012;14(5)
36. McRae AD, Wang D, Mercur L, Lang E, Innes GD. Outcomes and length of stay of low-risk abdominal pain patients returning to the ED for scheduled next-day abdominal ultrasonography. *Can J Emerg Med.* 2012;14(5)

37. Cooke T, Lang E, Schmid C, Innes GD, Guebert N, Holroyd B, Rowe B, McRae A, Cowell J. Do Improvements In Emergency Department Operations Influence The Patient Experience? Impacts Of Large Scale Implementation Of Overcapacity Protocols On Perceptions Of Crowding And Overall Ratings Of Care. *Can J Emerg Med.* 2012;14(5)
38. Innes GD, McRae A, Holroyd B, Rowe B, Schmid C, Liu M, Mercuur L, Guebert N, Wang D, Scarlett J, Lang ES. Policy-driven Improvements In Crowding: System-level Changes Introduced By A Provincial Health Authority And Its Impact On Emergency Department Operations In 15 Centers. CAEP Annual Scientific Assembly, May 2012, Niagara, ON. *Can J Emerg Med.* 2012;14(5)
39. Innes GD, McRae A, Mercuur L, Guebert N, Wang D, Lang ES. Implementation of an overcapacity protocol improves emergency care access and patient flow in the Calgary Health Region. *Can J Emerg Med.* 2012;14(5)
40. Crowder K, Jones T, Wang D, Clark S, Lang E, Innes GD, McMeekin J, McRae AD. The effect of implementing high-sensitivity troponin testing on operational efficiency in three large urban emergency departments. Canadian Cardiovascular Congress, October 2012, Toronto, ON
41. McRae AD, Wang D, Blanchard IE, Almansoori W, Anton A, Lang E, Innes GD; Upstream relief: Benefits of a provincial ED overcapacity protocol on EMS offload delay. Canadian Association of Emergency Physicians Scientific Meeting. Niagara Falls, Ontario 2012 June, *Can J Emerg Med* 2012;14(S1)
42. Tran D, Rich T, McRae A, Rowe B, Mularski R, Krishnan J, Lonergan K, Lang E; Noninvasive positive pressure ventilation to treat acute exacerbations of chronic obstructive pulmonary disease: A study of utilization and adherence to evidence-based standards and proposed quality improvement metrics. Canadian Association of Emergency Physicians Scientific Meeting. Niagara Falls, Ontario 2012 June, *Can J Emerg Med* 2012;14(S1)
43. Feng X, Tian Z, Rowe BH, McRae AD, Thiruganasambandamoorthy V, Rosychuk RJ, Sheldon R, Lang E. Predictors of admission/readmission, and regional variations in practice patterns: a four-year population based analysis of emergency department syncope in Alberta. Canadian Association of Emergency Physicians Scientific Meeting. Canadian Association of Emergency Physicians Scientific Meeting. Niagara Falls, Ontario 2012 June, *Can J Emerg Med* 2012;14(S1)
44. Gallagher M, McRae AD, Freiheit E, Neufeld K, Wang D, Lang E; To drill or not to drill: Use of Burr Hole Trephination in Alberta. Canadian Association of Emergency Physicians Scientific Meeting. Niagara Falls, Ontario 2012 June, *Can J Emerg Med* 2012;14(S1)
45. Taylor J, McLaughlin K, Lang E, McRae AD, Anton A. Emergency medical services use of pre-hospital ultrasound in Canada. Canadian Association of Emergency Physicians Scientific Meeting. Niagara Falls, Ontario 2012 June, *Can J Emerg Med* 2012;14(S1)
46. Innes D, McRae AD, Holroyd B, Rowe BH, Lang ES, Et al. Policy-driven Improvements In Crowding: System-level Changes Introduced By A Provincial Health Authority And Its Impact On Emergency Department Operations In 15 centres. Canadian Association of Emergency Physicians Scientific Meeting. Niagara Falls, Ontario 2012 June, *Can J Emerg Med* 2012;14(S1)
47. Prystajeky M, Lang E, Wang D, Simon J, Sinnarajah A, et al. Emergency Department Utilization by Adult Cancer Patients: A Prospective Cohort Study. Canadian Association of Emergency Physicians Scientific Meeting. Niagara Falls, Ontario 2012 June, *Can J Emerg Med* 2012;14(S1)

48. Feng X, Tian Z, Rowe B, Rosychuk R, McRae AD, Sheldon R, Lang E. A four-year population-based analysis of disparity in admissions and readmissions for emergency department patients treated for syncope. Society for Academic Emergency Medicine 2012 Annual Meeting Chicago, IL. Acad Emerg Med 2012;19(5).
49. Crowder K, Jones T, Lang E, Clark S, Innes G, McMeekin J, Wang D, McRae A. The Effect of Implementing hsTnT Testing on Operational Efficiency in Three Large Urban EDs. Canadian Cardiovascular Society, October 2012 Toronto, Ontario.

2011

50. Stiell IG, Clement C, Rowe BH, Brison RJ, Lang E, et al. A Prediction Rule for Emergency Department Patients with Chronic Obstructive Pulmonary Disease.
51. Innes G, Mercuur L, Wang D, Dowling S, Lang E. Regional implementation of new intake processes improves access to care for mid-acuity patients in three urban emergency departments.
52. Cooke T, Aguanno A, Schorn R, Lahtinen M, Cowell J, MacRae A, Rowe BH, Lang E. Drivers of Patient Experience. Findings from the Health Quality Council of Alberta Urban and Regional Emergency Department Patient Experience Report.
53. Stiell IG, Clement CM, Brison RJ, Rowe BH, Borgundvaag B, Aaron S, Lang E, et al. Canadian Heart Failure Risk Scale to Identify Emergency Department Patients with Heart Failure at High Risk for Serious Adverse Events.
54. Lang E, Ekanayake R, Rowe BH, et al. Admission Rates for Older Emergency Department Patients with Syncope are higher in the United States than Canada.
55. Aguanno A, Cooke T, Cowell J, Rowe BH, MacRae A, Lang E. Perceptions of Urgency. Findings from the Health Quality Council of Alberta Urban and Regional Emergency Department Patient Experience Report.
56. Lee P, Rowe BH, Innes G, Grafstein E, Vilneff R, Lang E. Reasons for specialty service consultation delay.
57. Rowe BH, Kokotilo A, Brick C, Loewen B, Lowes J, Lovstrom L, Couperthwaite S, Dong K, Lang E, Villa-Roel C. Tweeners: Delays for patients receiving two emergency department consultations.
58. Lee P, Rowe BH, Innes G, Grafstein E, Vilneff R, Lang E. Emergency Department Consultation Service Performance: Measuring Responsiveness and Decision Making Efficiency
59. Lang ES, Brown K, Weik T, et al. The Prehospital Management Of Acute Pain Due To Trauma: National Recommendations Developed Using The GRADE Methodology For Evidence-based Guidelines.
60. Rowe BH, Lowes J, Brick C, Kokotilo A, Loewen B, Lovstrom L, Couperthwaite S, Dong K, Lang E, Villa-Roel C. Consultation delays for admitted and discharged patients in two tertiary care Emergency departments.
61. Rowe BH, Villa-Roel C, Loewen B, Lowes J, Brick C, Kokotilo A, Lovstrom L, Couperthwaite S, Dong K, Lang E. Delays for elderly patients undergoing Emergency Department consultations.

62. Ross M, Brown M, McLaughlin K, Atkinson P, Thompson J, Powelson S, Clark S, Lang E. Emergency Physician Performed Ultrasound to Diagnose Cholelithiasis: A Systematic Review.
63. Syed S, Lang E, Wang D, Goulard D, Rich T, Innes G. Computer Physician Order Entry decreases time to medication delivery for High Acuity Patients in the Emergency Department.
64. Aguanno A, Lang E, Cooke T, Cowell J, Rowe B, Macrae A, Zaver F. Why did you go to the Emergency Department? Findings from the Health Quality Council of Alberta Urban and Regional Emergency Department Patient Experience Report.
65. Rowe BH, Singh M, Vila-Roel C, Edmonds M, Lang E, et al for the CAEP Research Consortium. Differences in outcome for adult patients presenting with Hypoglycemia: A Canadian Multicenter Study.
66. Rowe BH, Brick C, Kokotilo A, Loewen B, Lowes J, Lovstrom L, Couperthwaite S, Dong K, Lang E, Villa-Roel C. Exploring common reasons for consultation delays in Tertiary Care Emergency Departments.
67. Bond CM, Choo Q, Davenport J, Taylor A, Lee V, Lang E. The Emergency to Home Project: Impact of an Emergency Department Care Coordinator on Home Care Referrals and Hospitalization amongst seniors.
68. Lang ES, Brown K, Weik T, et al. National Recommendations For Prehospital Transport Of Trauma Patients Developed Using The GRADE Methodology For Evidence-based Guidelines: Air Versus Ground.

2010

69. Lang ES, Langan T, Innes G. Are Emergency Physicians Initiating Long-term Anticoagulation in Patients with Atrial Fibrillation and High CHADs Scores? Presented at the Society for Academic Emergency Medicine, Phoenix, Arizona, June 2010 Presented at the Canadian Association of Emergency Physicians Annual Scientific Meeting, Montreal, Canada, Can J Emerg Med 2010;12(3)245 (abstract).
70. Dowling S, Greenfield G, Wang D, Lang E, Innes G. Clinical experience predicts CT utilization rates in lower acuity patients. Presented at the Society for Academic Emergency Medicine, Phoenix, Arizona, June 2010 Presented at the Canadian Association of Emergency Physicians Annual Scientific Meeting, Montreal, Canada
71. Greenfield G, Dowling S, Wang D, Lang ES, Innes G. Variability in computed tomography utilization by emergency physicians in 3 urban hospitals. Presented at the Society for Academic Emergency Medicine, Phoenix, Arizona, June 2010 Presented at the Canadian Association of Emergency Physicians Annual Scientific Meeting, Montreal, Canada,
72. Koonar H, Kathy Taylor K, Lang E, Mercuur L, Wang D, Dowling S, Innes G. An Integrated rapid assessment zone and waiting room care initiative improves throughput for CTAS-III and CTAS-IV patients. Presented at the Society for Academic Emergency Medicine, Phoenix, Arizona, June 2010 Presented at the Canadian Association of Emergency Physicians Annual Scientific Meeting, Montreal, Canada.
73. Lang ES, Clement CM, Brison RJ, Rowe BH, Borgundvaag B, Langan T, Magee K, Stenstrom R, Perry JJ, Birnie D, Wells GA, Xue X, Innes G, Stiell IG. Are Emergency Physicians Initiating Long-Term Anticoagulation in Discharged Patients with Atrial Fibrillation and High CHADS Scores? Acad Emerg Med 2010;17:S467 (abstract). Presented at the Society for Academic Emergency Medicine, Phoenix, Arizona, June 2010 Presented at the Canadian Association of

Emergency Physicians Annual Scientific Meeting, Montreal, Canada, Can J Emerg Med 2010;12(3)245 (abstract).

74. Stiell IG, Clement CM, Brison RJ, Rowe BH, Borgundvaag B, Langan T, Lang E, Magee K, Stenstrom R, Perry JJ, Birnie D, Wells GA. Variation in ED Management of Recent-Onset Atrial Fibrillation and Flutter (RAFF). Acad Emerg Med 2010;17:S362 (abstract). Presented at the Society for Academic Emergency Medicine, Phoenix, Arizona, June 2010 Presented at the Canadian Association of Emergency Physicians Annual Scientific Meeting, Montreal, Canada, Can J Emerg Med 2010;12(3)242 (abstract).
75. Langan T, Lang ES, Clement CM, Brison RJ, Rowe BH, Borgundvaag B, Magee K, Stenstrom R, Perry JJ, Birnie D, Wells GA, Xue X, Innes G, Stiell IG. Predictors of Hospitalization in Patients Presenting to the Emergency Department with Recent-Onset of Atrial Fibrillation. Presented at the Canadian Association of Emergency Physicians Annual Scientific Meeting, Montreal, Canada, Can J Emerg Med 2010;12(3)235 (abstract).

2006-2009

Lang E, Afilalo M, Colacone A, Guttman A, Rowe B, Willis V, Ciolofan C, Penes M. Does Emergency Department Crowding Affect the Quality of Care Provided to Patients with Acute Asthma Exacerbation?

76. Oral presentation at the Annual Meeting of the Society for Academic Emergency Medicine (SAEM). May 2007, Chicago, Illinois.
77. Oral presentation at the Canadian Association of Emergency Physicians (CAEP) 2008 Annual Scientific Meeting. June 2008. Ottawa, Ontario.
78. Oral presentation at L'Association des médecins d'urgence du Québec (AMUQ) Annual Conference. November 2008, Québec City, Québec. Awarded second place.

Unger B, Afilalo M, Lang E, Segal E, Colacone A, Xue X, Soucy N. Resource Utilization by the Very Elderly in the Emergency Department.

79. Presented as a poster at the Society for Academic Emergency Medicine (SAEM). May 2008, Washington, DC.
80. Presented as a poster at the Canadian Association of Emergency Physicians (CAEP) 2008 Annual Scientific Meeting. June 2008. Ottawa, Ontario.
81. Presented as an oral presentation at L'Association des médecins d'urgence du Québec (AMUQ) Annual Conference. November 2008, Québec City, Québec.

Unger B, Afilalo M, Lang E, Segal E, Colacone A, Xue X, Soucy N. Distribution of Chief Complaints Using the Canadian Emergency Department Information System Chief Complaint List.

82. Presented as a poster at the Canadian Association of Emergency Physicians (CAEP) 2008 Annual Scientific Meeting. June 2008. Ottawa, Ontario.
83. Oral presentation at L'Association des médecins d'urgence du Québec (AMUQ) Annual Conference. November 2008, Québec City, Québec.

Lang E, Wyer PC, Huckson S, Biros M, Adams J, Tselios C, Afilalo M, Sinert R, Gaddis G. The Development Of A Consensus-Based Guide Map For Knowledge Translation In Emergency Medicine

84. Presented at the Guidelines International Network 4th Conference. August 2007, Toronto,
Lang E, Marc Afilalo, Antoinette Colacone, Alex Guttman, Brian Rowe, Virginia Willis, and Mihai Penes. Does Emergency Department Crowding Affect the Quality of Care Provided to Patients with Acute Asthma Exacerbation?
85. Accepted for oral presentation at the Association des Medecins d'Urgence annual meeting in 2008
86. Accepted for oral presentation at the Canadian Association of Emergency Physicians meeting in 2008
87. Accepted for oral presentation at the Annual Meeting of the Society for Academic Emergency Medicine (SAEM). May 2007, Chicago, Illinois.
Lang E, Afilalo M, Vandal AC, Boivin JF, Xue X, Colacone A, Léger R, Shrier I, & Rosenthal S. Impact of an Electronic Link Between the Emergency Department and Family Physicians: A Randomized Controlled Trial.
88. Accepted for oral presentation at the Canadian Association for Health Services & Policy Research (CAHSPR). September 2006, Vancouver, British Columbia.
Lang E, Kovacs G, Stiell I, Afilalo M, Kahn SR, Dreyer J, Snyder B, Anderson D. Computerized Tomographic Pulmonary Angiography Compared With Ventilation Perfusion Lung Scanning as Initial Diagnostic Modality for Patients With Suspected Pulmonary Embolism: A Randomized Trial.
89. Accepted for oral presentation at the International Conference on Emergency Medicine (ICEM). June 2006, Halifax, Québec.
90. Accepted for oral presentation at the Annual Meeting of the Society for Academic Emergency Medicine (SAEM). May 2006, San Francisco, California.
Rowe BH, Tyler L, Blitz S, Mackay D, Lang E, Walker A, Ross S, Sivilotti M, Borgundvaag B. Prospective Multicenter Study of Treatment and Relapse Following Emergency Department Discharge for Acute Asthma.
91. Submitted to be presented at the International Conference on Emergency Medicine (ICEM). June 2006, Halifax, Québec.
92. Accepted for oral presentation at the Annual Meeting of the Society for Academic Emergency Medicine (SAEM). May 2006, San Francisco, California.
Afilalo M, Lang E, Tselios C, Guttman A, Colacone A, Kahn S, Hirsch A, Xue X, Pleasance S, Anderson D. Length of Stay Considerations When Selecting An Imaging Strategy for High-risk Patients With Suspected Pulmonary Embolism: An Analysis of the Pulmonary Embolism Diagnostic Study.
93. Accepted for oral presentation at the International Conference on Emergency Medicine (ICEM). June 2006, Halifax, Québec. (1st Author: Lang E).
94. Accepted for oral presentation at the Annual Meeting of the Society for Academic Emergency Medicine (SAEM). May 2006, San Fransisco, California. (1st Author: Afilalo M).
Venughopal R, Lang E, Doyle K, Sinclair D, Afilalo M, Colacone A, Xue X. A Multifaceted Workshop for Improving Productivity and Workflow Efficiency Skills in Emergency Medicine Trainees.

95. Accepted for presentation at the Annual Meeting of the Society for Academic Emergency Medicine (SAEM). May 2006, San Francisco, California.

Soucy N, Xue X, Unger B, Lang E, Colacone A, Léger R, Rosenthal S, Afilalo M. Can Emergency Department Utilization Be Predicted?

96. Presented at the Society for Academic Emergency Medicine (SAEM) 2005 Annual Meeting. May 2005, New York City, New York.

97. Presented at the Canadian Association of Emergency Physicians (CAEP) 2005 Annual Scientific Meeting. May-June 2005, Edmonton, Alberta.

Lang E, Léger R, Colacone A, Xue X, Guttman A, Pearson E, Afilalo M. Temporal Changes in Vaccine Uptake of an ED-based Pneumococcal and Influenza Vaccination Program for Unprotected High-risk Patients.

98. Presented at the Canadian Association of Emergency Physicians (CAEP) 2005 Annual Scientific Meeting. May-June 2005, Edmonton, Alberta.

Lang E, Wyer PC, Guttman A, Poitras J, Colacone A, Xue X, Hayward R, Afilalo M. The Effects of an Evidence-based Emergency Workshop on the Application of Pre-appraised Resources in Clinical Practice.

99. Presented at SAEM 2004 Annual Meeting. May 2004, Orlando, Florida.

100. Presented at CAEP & AMUQ 2004 Annual Meeting. April 2004, Montreal, Quebec.

Alam N, Lang E, Ross J, Turner J, Serero D, Colacone A, Xue X, Afilalo M. Evaluation of a Dedicated Teaching Shift Involving Direct Bedside Observation of Trainees by Attending Staff.

101. Presented at SAEM 2004 Annual Meeting. May 2004, Orlando, Florida.

102. Presented at CAEP & AMUQ 2004 Annual Meeting. April 2004, Montreal, Quebec.

Lang E, Afilalo M, Boivin JF, Léger R, Colacone A, Giguère C, Xue X, Vandal A, Rosenthal S, Unger B. Linking the Emergency Department With Primary Care Physicians: Impact on Continuity of Care. *Impact d'un système de communication standardisé (SCS) entre le département d'urgence et le réseau de soins de santé primaire (RSSP) sur la continuité des soins ; Résultats d'une étude randomisée.* Sir Mortimer B. Davis – Jewish General Hospital, Emergency Department, McGill University, Montreal, Quebec.

103. Presented at ACFAS 72nd Congress. May 2004, Montreal, Quebec.

104. Presented at CAEP 2003 Annual Scientific Meeting. June 2003, Winnipeg, Manitoba.

105. Presented at SAEM 2003 Annual Meeting. May 2003, Boston, Massachusetts.

106. Presented at the 19th Annual Congress of AMUQ. October 2002, Montreal, Quebec. Awarded second prize.

Afilalo M, Lang E, Boivin JF, Léger R, Colacone A, Giguère C, Xue X, Vandal A, Rosenthal S, Unger B. Do Electronic Linkages Between the Emergency Department and Primary Care Physicians Reduce Resource Utilization in the Emergency Department? Results of a Randomized Controlled Trial. *Un système de communication standardisé (SCS) entre le département d'urgence (DU) et le réseau de soins de santé primaire (RSSP) apporte-t-il une diminution d'utilisation des ressources au*

DU ; Résultats d'une étude randomisée. Sir Mortimer B. Davis – Jewish General Hospital, Emergency Department, McGill University, Montreal, Quebec.

107. Presented at CAEP 2003 Annual Scientific Meeting. June 2003, Winnipeg, Manitoba.

108. Presented at SAEM 2003 Annual Meeting. May 2003, Boston, Massachusetts.

109. Presented at the 19th Annual Congress of AMUQ. October 2002, Montreal, Quebec.

Lang E, Afilalo M, Boivin JF, Léger R, Colacone A, Giguère C, Xue X, Vandal A, Rosenthal S, Unger B. Family Physician's Perception of a Standardized Communication System (SCS) That Delivers Computer-based Emergency Department (ED) Patient Information to Their Office. *Perception qu'ont les médecins du réseau de soins de santé primaire (RSSP) vis-à-vis un système de communication standardisé (SCS) entre le département d'urgence (DU) et le RSSP.* Sir Mortimer B. Davis – Jewish General Hospital, Emergency Department, McGill University, Montreal, Quebec.

110. Presented at CAEP 2003 Annual Scientific Meeting. June 2003, Winnipeg, Manitoba.

111. Presented at the 19th Annual Congress of AMUQ. October 2002, Montreal, Quebec.

Meyers C, Lang E, Martin J, Dankoff J, Moore S, Afilalo M. Diagnostic Accuracy of Helical Computed Tomography in the Diagnosis of Renal Colic in the Emergency Department: A Meta-analysis. Sir Mortimer B. Davis - Jewish General Hospital, Emergency Department, McGill University, Montreal, Quebec. *Canadian Journal of Emergency Medicine.* March 2002; 4(2): 126.

112. Presented at CAEP 2002 Annual Scientific Meeting. April 2002, Hamilton, Ontario.

Pearson E, Lang E, Colacone A, Goulet M, Rahmani S, Virgona M, Trudel N, Afilalo M. Successful Implementation of a Combined Pneumococcal and Influenza Vaccination Program in a Canadian Emergency Department. *Implantation réussie d'un programme de vaccination antigrippale et antipneumococcique dans un département d'urgence canadien.* Sir Mortimer B. Davis - Jewish General Hospital, Emergency Department, McGill University, Montreal, Quebec. *Canadian Journal of Emergency Medicine,* March 2002; 4(2): 125.

113. Presented at the 19th Annual Congress of AMUQ. October 2002, Montreal, Quebec.

114. Presented at SAEM 2002 Annual Meeting. May 2002, St-Louis, Missouri.

115. Presented at CAEP 2002 Annual Scientific Meeting. April 2002, Hamilton, Ontario.

Lang E, Kahn SR, Josephson T, Tselios C, Colacone A, Pike J, Robitaille Ch, Goulet M, Afilalo M. An Emergency Department-based Outpatient Treatment Program for Deep Vein Thrombosis: A Prospective Evaluation of Safety and Patient Satisfaction. *Protocole de traitement hors-hospitalier de la thrombophlébite profonde basée à l'urgence : Une évaluation prospective des aspects sécuritaires et de la satisfaction des patients.* Sir Mortimer B. Davis – Jewish General Hospital, Emergency Department, McGill University, Montreal, Quebec. *Canadian Journal of Emergency Medicine,* March 2002; 4(2): 135.

116. Presented at SAEM 2002 Annual Meeting. May 2002, St-Louis, Missouri.

117. Presented at CAEP 2002 Annual Scientific Meeting. April 2002, Hamilton, Ontario.

118. Presented at the 18th Annual Congress of AMUQ. October 2001, Quebec City, Quebec.

Afilalo M, Lang E, Colacone A, Boivin JF, Robitaille Ch, Rosenthal S, Unger B, Goldstein H, Rouleau Y, Tremblay S, Léger R, Tselios C. *Impact d'un système de communication standardisée entre les*

départements d'urgence et le réseau de soins de santé primaire ; Effet sur la continuité et la qualité des soins.

119. Presented at the 18th Annual Congress of AMUQ. October 2001, Quebec City, Quebec.

Guttman A, Guttman R, Colacone A, Robitaille C, Lang E, Rosenthal S, Afilalo M. The Impact of a Nurse Discharge Coordinator on the Successful Discharge of Elder Patients From the Emergency Department. *Impact d'une infirmière coordinatrice des congés au département d'urgence (DU) sur le succès des congés des patients âgés.* Sir Mortimer B. Davis - Jewish General Hospital, Emergency Department, McGill University, Montreal, Quebec. *Journal of Emergency Medicine*, April 2001; 3(2): 121-122.

120. Presented at the Health Transition Fund, Sharing and Learning. April 2001, Montreal, Quebec.

121. Presented at the CAEP 2001 Congress. March 2001, Calgary, Alberta.

122. Presented at the SAEM 2001 Congress. 2001, Atlanta, Georgia.

123. Presented at the Carrefour de l'innovation. November 2001, Montreal, Quebec.

124. Presented at the 2001 Annual Congress of the OIIQ. October 2001, Quebec City, Quebec.

125. Presented at the 18th Annual Congress of AMUQ. October 2001, Quebec City, Quebec. Awarded second prize.

Afilalo M, Lang E, Boivin JF, Colacone A, Robitaille C, Rosenthal S, Unger B, Goldstein H, Rouleau Y, Tremblay S, Léger R, Tselios C. Communicating Clinical Information Between the Emergency Department and Family Physicians: A Qualitative Analysis of Current Practices and Suggestions for Improvement. Sir Mortimer B. Davis - Jewish General Hospital, Emergency Department, McGill University, Montreal, Quebec. *Canadian Journal of Emergency Medicine*, April 2001; 3(2): 146.

126. Presented at the CAEP 2001 Congress. March 2001, Calgary, Alberta.

Afilalo M, Unger B, Colacone A, Boivin JF, Lang E, Guttman A, Robitaille C, Léger R, Stiell I, Rosenthal S, Sheridan M, Tselios C. Development and Evaluation of a Chief Complaint Classification System for Comparing Emergency Department Clienteles. *Évaluation d'un système de classification des motifs de visite pour la comparaison des clientèles des départements d'urgence.* Sir Mortimer B. Davis - Jewish General Hospital, Emergency Department, McGill University, Montreal, Quebec. *Canadian Journal of Emergency Medicine*, April 2001; 3(2): 121.

127. Presented at the CAEP 2001 Congress. March 2001, Calgary, Alberta.

128. Presented at the 18th Annual Congress of AMUQ. October 2001, Montreal, Quebec. Awarded second prize.

Afilalo M, Cardin S, Colacone A, Collet JP, Tselios C, Lang E, Kohn R, Grad W, Schull M, Guttman A, Dankoff J. Intervention to Decrease Emergency Department Overcrowding: Impact on Emergency Department Return Visits and Hospital Readmissions. Sir Mortimer B. Davis - Jewish General Hospital, Emergency Department, McGill University, Montreal, Quebec.

129. Presented at the 2000 International Congress of Emergency Medicine. May 2000, Boston, Massachusetts.

130. Presented at the CAEP & AMUQ 1999 Congress. October 1999, Quebec City, Quebec.

Lang E, Afilalo M, Colacone A, Dankoff J, Cardin S, Tselios C, Grad W, Kohn R, Schull M. A Comprehensive Assessment of Avoidability in a Population of Emergency Department Revisitors. Sir Mortimer B. Davis - Jewish General Hospital, Emergency Department, McGill University, Montreal, Quebec.

131. Presented at the 2000 International Congress of Emergency Medicine. May 2000, Boston, Massachusetts.

132. Presented at the CAEP & AMUQ 1999 Congress. October 1999, Quebec City, Quebec.

Lang E, Afilalo M, Dankoff J, Guttman A, Colacone A, Stern E, Tselios C. The Prognostic Significance of Moderate Hyperamylasemia in the Evaluation of the Emergency Department Patient. *Clinical and Investigative Medicine*, 1993; 16(4): B41.

133. Presented at the 1993 Annual Meeting of the Royal College of Physician and Surgeons of Canada. 1993, Vancouver, BC.

Conference Publications

2018

1. Pain Management Strategies for Lumbar Puncture in Neonates: A Systematic Review", has been accepted for the Pediatric Academic Societies (PAS) 2018 Meeting, May 5 - 8, in Toronto, Canada.

2014

1. Cross E, Bhutani M, Majumdar SR, Rosychuk RJ, McCabe C, Lang E, Leigh R, Villa-Roel C, Rowe BH. Action plans in patients presenting to emergency departments with asthma exacerbations. Poster presented at CAEP Annual conference, Ottawa June 2014. *CJEM* 2014;16(S):105.
2. Brown N, Ng M, Lang E, Pytka S, Pat A, Liu YS, McRae A. Lumbar puncture practices by emergency physicians: a multicenter study. Poster presented at CAEP Annual conference, Ottawa June 2014. *CJEM* 2014;16(S):98.
3. Jones S, Bastian J, Wang D, McRae A, Lang E. The use of electronic health records for emergency department quality improvement evaluations in Calgary. Poster presented at CAEP Annual conference, Ottawa June 2014. *CJEM* 2014;16(S):94.
4. Innes G, Lang E, Wang D, McRae A. Region-wide variability of operational performance and utilization behaviour for emergency physicians. Poster presented at CAEP Annual conference, Ottawa June 2014. *CJEM* 2014;16(S):93.
5. Innes G, McRae A, Wang D, Lang E. Impact of a new ED on regional ED and urgent care utilization and wait times (Build it and they will come). Poster presented at CAEP Annual conference, Ottawa June 2014. *CJEM* 2014;16(S):92.
6. Harris DR, Lang E. CAEP Stroke Practice Committee Position Statement on thrombolysis for acute ischemic stroke. Poster presented at CAEP Annual conference, Ottawa June 2014. *CJEM* 2014;16(S):91.

7. Clinkard D, Stiell IG, Clement CM, Brison RJ, Rowe BH, Dorian P, Borgundvaag B, Redfearn D, Eagles D, Langhan T, Lang E, Magee K, Stenstrom R, Rose S, Wyse G, Perry JJ, Birnie D, Wells G, McRae A. Geographic variation in sedation choice for electrical cardioversion in Canadian academic emergency departments. Poster presented at CAEP Annual conference, Ottawa June 2014. CJEM 2014:16(S):82.
8. Allen RA, BEng, Tay JK, Saude EJ, Junghans T, Lang E. Bridging the pain gap between emergency department discharge and community care: a pilot evaluation of the Calgary 'Opioids For Home' program. Poster presented at CAEP Annual conference, Ottawa June 2014. CJEM 2014:16(S):77.
9. Moncrieff K, Kruck C, Knisley L, Goulard D, Sinclair D, Klassen T, Lang E. Referral patterns for pediatric emergencies: an assessment of knowledge needs for the Translating Emergency Knowledge for Kids (TREKK) Network. Moderated poster presentation at CAEP Annual conference, Ottawa June 2014. CJEM 2014:16(S):75.
10. Jervis A, Jones S, Wang D, Lang E. Variability of CTAS scoring in two tertiary care centres in Calgary. Moderated poster presentation at CAEP Annual conference, Ottawa June 2014. CJEM 2014:16(S):72.
11. Curry G, Innes G, McRae A, Wang D, Baker L, Mercuur L, Lonergan K, Rich T, Lang E. An emergency physician multi-measure performance profile for promoting reflections on practice and promoting regression to the mean through peer comparison. Moderated poster presentation at CAEP Annual conference, Ottawa June 2014. CJEM 2014:16(S):68.
12. Lee JS, Sirois M, Neveu X, Perry XX, Worster A, Daoust R, Lang E, Emond M. Return to the ED after discharge following minor injury: results from 1436 patients in the Canadian Emergency Trauma Initiative (CETI) observational cohort study. Moderated poster presentation at CAEP Annual conference, Ottawa June 2014. CJEM 2014:16(S):65.
13. Innes G, McRae A, Wang D, Mercuur L, Curry G, Lang E. Determinants of emergency physician productivity and utilization. Moderated poster presentation at CAEP Annual conference, Ottawa June 2014. CJEM 2014:16(S):64.
14. Clinkard D, Stiell IG, Clement CM, Brison RJ, Rowe BH, Dorian P, Borgundvaag B, Redfearn D, Langhan T, Lang E, Magee K, Rose S, Stenstrom R, Eagles D, Wyse G, Perry JJ, Birnie D, Wells G, McRae A. Predictors of adverse events associated with sedation choice in electrical cardioversion. Moderated poster presentation at CAEP Annual conference, Ottawa June 2014. CJEM 2014:16(S):59.
15. Emond M, Sirois M, Lee JS, Perry JJ, Lang E, Worster A, Daoust R, LeSage N. Derivation of predicting tools of functional decline in independent seniors with minor injuries in the ED. Moderated poster presentation at CAEP Annual conference, Ottawa June 2014. CJEM 2014:16(S):59.
16. Innes G, McRae A, Wang D, Lang E. Why are fast physicians fast? Moderated poster presentation at CAEP Annual conference, Ottawa June 2014. CJEM 2014:16(S):58.
17. Lee JS, Sirois M, Neveu X, Perry JJ, Worster A, Daoust R, Lang E, Emond M. Availability of needed services for older ED patients after discharge following minor injury: results from 1436 patients in the Canadian Emergency Trauma Initiative (CETI) observational cohort study. Moderated poster presentation at CAEP Annual conference, Ottawa June 2014. CJEM 2014:16(S):57.

18. Lang ES. General Surgery Consultations in the Emergency Department: A Multicenter Analysis of the Appropriateness and Timing of Surgical Referrals. – Moderated poster presentation at CAEP Annual conference, Ottawa June 1, 2014. CJEM 2014:16(S):56.
19. Curry G, Innes G, McRae A, Wang D, Baker L, Mercur L, Lonergan K, Rich T, Lang E. An Emergency Physician Multi-Measure Performance Profile for Promoting Reflections on Practice and Promoting Regression to the Mean through Peer Comparison. Moderated poster presented at CAEP Annual conference, Ottawa, June 3 2014.
20. Aghajafari F, Powelson S, McClurg C, Edworthy SM, Lang E. The Effect of a Revised Approach to teaching Evidence Based Medicine on Medical Student Performance. Abstract presented at the 6th Ottawa - 12th Canadian Conference on Medical Education. Ottawa ON, Apr 28 2014.

2013

21. Lalli P, Gill J, Wang D, Mercur L, Lang ES, McRae A. An expedited oral contrast protocol for suspected appendicitis does not lead to missed cases requiring surgery. Poster at CAEP meeting. Vancouver BC, Jun 1 2013. CJEM 2013:15(S):68.
22. Berthelot S, Stelfox HT, Lang ES, Quan H. Development of a new indicator measuring in-hospital mortality of patients with emergency-sensitive conditions. Poster at CAEP meeting. Vancouver BC, Jun 1 2013. CJEM 2013:15(S):61.
23. Gill J, Lalli P, Wang D, Mercur L, Lang ES, McRae A. The Calgary multifaceted intervention for suspected appendicitis reduces ED length of stay and time to surgery. Poster at CAEP meeting. Vancouver BC, Jun 1 2013. CJEM 2013:15(S):54.
24. Jones S, Bastian J, McRae A, Wang D, Lonergan K, Lang ES. Gender-specific differences in the prevalence and emergency department management of anaphylaxis: a multi-centre study. Poster at CAEP meeting. Vancouver BC, Jun 1 2013. CJEM 2013:15(S):48.
25. McRae A, Crowder K, Jones T, Innes G, Clark S, McMeekin J, Wang D, Lonergan K, Graham M, Lang ES. High-sensitivity troponin implementation for patients with suspected ACS increases the rule-out rate while reducing revisits resulting in admission. Moderated electronic poster presentation at CAEP meeting. Vancouver BC, Jun 1 2013. CJEM 2013:15(S):45.
26. Crowder K, Jones T, Wang D, Clark S, Innes G, Lang ES, McMeekin J, Lonergan K, Graham M, McRae A. The effect of implementing high-sensitivity troponin testing on operational efficiency in three large urban emergency departments. Moderated electronic poster presentation at CAEP meeting. Vancouver BC, Jun 1 2013. CJEM 2013:15(S):44.
27. Kim JJ, Rich T, Lonergan K, Wang D, McRae A, Lang ES. An elder-friendly electronic hip fracture order set reduces the use of medications associated with delirium. Moderated poster presentation at CAEP Meeting. Vancouver BC, Jun 1 2013. CJEM 2013:15(S):37.
28. Jones S, McRae A, Bastian J, Lonergan K, Wang D, Lang ES. Evaluating missed opportunities in identification of traumatic intracranial hemorrhage in the emergency department: a novel safety strategy? Results from a multi-centre study. Moderated poster presentation at CAEP meeting. Vancouver BC, Jun 1 2013. CJEM 2013:15(S):26.

| |
|---------|
| Reviews |
|---------|

1. **Lang E.** Shared Decision-Making in patients with low-risk chest pain: a prospective randomized pragmatic trial. July 2016. Manuscript ID BMJ.2016.034721

2. **Lang E.** Public Access Defibrillators: Latest Evidence and Recommendations. Perspectives in Cardiology. June/July 2008, Volume 24, Number 6
3. **Lang E.** Basic Life Support and Advanced Cardiac Life Support: An Update. Perspectives in Cardiology. February 2008, Volume 24, Number 2
4. **Lang E.** La traumatologie en gériatrie : les enjeux d'un défi unique. MedActuel FMC, 2005, vol. 5, n° 5 (mars).
5. **Lang E.** L'information, preuves à l'appui : Les niveaux de preuves. (5th in a series of related articles). FMC MedActuel, February 2003; 3(2).
6. **Lang E.** L'information, preuves à l'appui : La formulation d'une question clinique précise. MedActuel FMC. January/February 2002.
7. **Lang E.** « La médecine, preuves à l'appui » : Un changement fondamental dans le raisonnement clinique ou de nouveaux termes pour d'écrire d'anciens concepts? MedActuel FMC. November/December 2001.

| |
|-----------|
| Abstracts |
|-----------|

1. Emergency Physician Use of a Provincial Interoperable Electronic Health Record. Tim A.D. Graham, Mark Ballermann, Denise Parsons, Gabriella Mercur, Eddy Lang, Michael Bullard, Pat San Agustin, Samina Ali
2. Pain Management Strategies for Lumbar Puncture in Neonates: A Systematic Review. Eddy Lang, Rebecca Pillai Riddell, C.Psych. Ng, Eugene. Vibhuti Shah