Funded Master’s Research Project Opportunity

Knowledge translation interventions in perioperative medicine and anesthesiology: A systematic review of multicenter RCTs

Investigators/Co-Supervisors

Sylvain Boet, MD, PhD
Associate Professor, University of Ottawa
Department of Anesthesiology & Pain Medicine and
Department of Innovation in Medical Education
Associate Scientist, Ottawa Hospital Research Institute

Justin Presseau, PhD
Assistant Professor, University of Ottawa
School of Epidemiology, Public Health & Preventive Medicine
Scientist, Ottawa Hospital Research Institute

Student Role:
Learn about all steps of conducting a systematic review, and contribute to data collection, analysis, and writing of the manuscript that will be submitted for peer reviewed publication. First authorship position possible (per international criteria).

Thesis Opportunity:
Develop secondary analyses from the initial larger project. Conduct database and/or survey research under the guidance of the research supervisors to determine evidence-practice gaps of interventions identified in previous systematic reviews.

Funding: 2 years @ 19,000/year (OHRI scale)

Background: Data indicates that 30-50% of patients do not receive recommended care and 20-30% of patients receive unnecessary interventions, resulting in inappropriate use of drugs and devices, increased morbidity and mortality, and wasted resources. Since more than 230 million major surgical procedures are undertaken annually worldwide, better application of evidence in anesthesia and perioperative medicine has great potential to improve patient care. In order to promote the systematic, effective transfer of research evidence to the bedside of surgical patients, it is crucial to understand the state of knowledge transfer specific to the perioperative period.

Objective: To conduct the first comprehensive assessment of the current state of implementation research evidence in anesthesia and perioperative medicine in order to identify effective knowledge translation strategies.

Methods: Comprehensive searches will be conducted using electronic databases (e.g. MEDLINE, EMBASE, CINAHL, PsycINFO, ERIC) and grey literature sources. Only multicenter randomized controlled trials will be considered as they represent the highest grade of evidence. Study selection and data extraction will be performed independently by pairs of reviewers in duplicate. Extracted data will include the clinical topic, knowledge translation intervention(s), process of care measures, and patient outcomes. A pre-defined analysis plan will meta-analyze outcome and conduct subgroup analyses where possible. An integrated knowledge translation strategy will be used to conduct the review and undertake KT activities to disseminate results to relevant audiences.

Implications: This review will improve our understanding of existing knowledge translation strategies in the perioperative period, and chart and classify the evidence according to specific topics and implementation strategies in anesthesia and perioperative medicine. Findings will support the development of evidence-based recommendations for implementation strategies and inform stakeholders’ decision-making regarding KT strategies for surgical patients. This will ultimately improve processes and outcomes of surgical patient care and safety.