Comprehensive Research Experience for Medical Students (CREMS)  
2022 Supervisor and Project Information Form

Please complete and return via email ONLY to crems.programs@utoronto.ca by February 18, 2022.

Supervisor Information

NOTE: CREMS will not support pre-determined pairings of students and supervisors. Supervisors must agree to open their projects to all students and interview all that are interested.

Name:  
Dr. Lindsay Shirreff  
Co-Investigator: Dr. Ally Murji

Email:  
Lindsay.shirreff@smaihealth.ca

Department:  
Obstetrics and Gynaecology

Hospital/Research Institution:  
Mount Sinai Hospital

SGS Department(s) (if applicable):  
Click or tap here to enter text.

ORCID ID (see https://orcid.org/ - If you do not have an ORCID ID we encourage you to sign up for one):  
https://orcid.org/0000-0001-6854-0888

Location of Work:  
Mount Sinai Hospital

Field of Research (up to 4 keywords):  
quality improvement, surgical gynaecology, surgical outcomes

Student contact time (number of hours per week YOU are available to the student for any concerns or to review progress):  
A minimum of 6 hours per week.
Project Information

NOTE: If this project is selected, this information will be posted on CREMS website for interested student applicants to view research opportunities.

PROJECT TITLE:
SURGICAL GYNAECOLOGY QUALITY SCORECARD
Sub-Study:
Healthcare cost associated with anemia at elective hysterectomy: A large retrospective study

PROJECT DESCRIPTION:
Including background, aim(s), methodS and significance of the project. Maximum 300 words.

Background: In 2016, we created an online scorecard for hysterectomy procedures, which is now distributed biannually (8 Ontario hospitals and 1 Nova Scotia tertiary centre (~120 surgeons)) with approximately 5500 hysterectomies in our retrospective database. While this started as a quality improvement initiative, we now have a large repository of data and several ongoing research projects. In a recent analysis, we determined rate and predictors of preoperative anemia (hemoglobin <120 g/L). Preoperative anemia is a risk factor for adverse perioperative outcomes following gynaecologic surgery. The CREMS student will assist in analysis and manuscript preparation for the second component of this study, which is an assessment of healthcare costs associated with preoperative anemia in our study population.

Study Objectives: 1) To determine the hospital cost of index surgical admission, postoperative length of stay, and transfusion rate associated with preoperative anemia in elective hysterectomy.

Design: Retrospective review of 5500 hysterectomies

Setting: 9 Canadian hospitals

Participants: Patients undergoing elective hysterectomy from July 2016-December 2020

Measurement: Primary outcome will be total hospital costs standardized to 2021 CAD. Secondary outcomes will be postoperative length of stay and transfusions. Multivariable regression analyses and propensity score methods will be used to measure adjusted associations between anemia and outcomes.

This is a significant study as anemia is highly prevalent in gynaecologic patients undergoing elective hysterectomy. However, there is a lack of evidence on how much anemia impacts healthcare costs.

Is this project remote-capable (in case of new restrictions) or have an alternative remote option?
☒ Yes, remote capable ☐ No
☐ Yes, alternate remote option. Please specify (100 words max): Click or tap here to enter text.

If human subjects are involved, have the appropriate Research Ethics Board approvals been obtained?
☒ Yes ☐ No ☐ Not Applicable

If yes, please list the application submission date:
Do you expect this work will be published?

☒ Yes ☐ No ☐ Uncertain / Other
Research Environment and Student Roles and Responsibilities

Please be specific as possible. Please describe the research environment, including availability of required facilities/equipment/expertise, supervisor’s experience and mentorship plans. Please clearly outline the student role(s) and responsibilities related to the project, potential educational value, and indicate who will serve as the student’s direct report for daily oversight (PI, PHD student, technician, etc.). Maximum 300 words.

Dr. Lindsay Shirreff has successfully supervised many students in previous years through the Surgical Gynaecology Scorecard Project. Our students have presented their work at national and international conferences and we have helped them achieve authorship on several publications.

The CREMS student will be welcomed to our team this summer. We have a full time Research Assistant and Research Coordinator who will assist with orientation and onboarding of the student on the relevant REB applications and projects. The student can work virtually or in an office at Mount Sinai Hospital. Due to COVID-19, our two previous students have worked virtually. This was done seamlessly and students had regular check-in and progress meetings on Mondays and Fridays with email and phone communication in between.

For the aforementioned project, the student will assist with data analysis and manuscript preparation. The student will be mentored through all stages of the process. We also view this program as an opportunity to mentor students who may be interested in pursuing Obstetrics and Gynaecology as a career choice. In the past, our partnership with students has extended beyond the summer months and most have come back to complete clinical electives during their final year of medical school.

There are several other sub-studies being conduction through the Surgical Gynaecology Scorecard Project. The CREMS student will primarily assist in data analysis and manuscript preparation for the aforementioned project. However, he/she/they will have the opportunity to become involved in one other study of their choice based on clinical interest. This will be determined at the start of the summer placement. Furthermore, we have recently launched the Gynaecology Quality Improvement Collaboration website (www.gynqi.com). There will be opportunity, this summer, for the student to develop content and implement knowledge translation strategies.