Supervisor Name: Dr. Samir Gupta

Project Title: Implementation and Monitoring of the Electronic Asthma Management System in Family Health Team Clinics

Hospital/Research Institution: St. Michael’s Hospital

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Field of Research (2 keywords): Asthma; clinical decision support

Department: Respirology

School of Graduate Studies Appointment (IMS, LMP, IHPME etc)? Yes/No: No

Brief Project Description (<300 words):

A majority of patients with asthma are poorly controlled. An asthma action plan (AAP) (a personalized patient document outlining strategies for self-managing acute loss of asthma control) may address poor control, but clinicians seldom provide patients with AAPs due to inexperience and lack of time. To address this, we developed the Electronic Asthma Management System (eAMS), consisting of an app-based patient questionnaire that collects asthma-related information, and a computerized decision support system (CDSS) that auto-creates an AAP and integrates it into the electronic medical record system, for clinicians. Pilot testing demonstrated that the eAMS significantly improves AAP delivery by clinicians to patients [1/462 (0.2%) pre- versus 98/556 (18%) patients post-implementation, p<0.01].

However, patient adherence to medications remains a major barrier to the effectiveness of the AAP. To address this, we received CIHR funding to build a patient decision aid into the eAMS, to enable clinician and patient shared decision-making surrounding asthma medications. This summer, we will be launching the clinical trial of this enhanced version of the eAMS across
3 primary care clinics in Ontario, with outcomes including usage of the decision aid, patient/clinician satisfaction, and impact on decisional conflict.

We are seeking a motivated student who would interact with clinical sites as the technology is rolled out (site visits to assess logistical issues) and collect and manage data (including patient questionnaires and interviews) (with the help of a full time research coordinator). The student must be proficient in Excel data manipulation and have both an interest in the role of technology in healthcare and strong team skills. The student would be invited to present preliminary findings in poster form and to participate in later manuscript production if interested. This position includes opportunities for learning about the development of computerized CDSSs and moderating user feedback focus group sessions.