

FEASIBILITY OF A VIRTUAL PERIOPERATIVE SMOKING CESSATION PROGRAM UTILIZING EMAIL MESSAGES – A PILOT RANDOMIZED CONTROLLED TRIAL

Category: Poster Presentation (in person)

Abstract Body

Background: Tobacco smokers have a significantly higher risk than non-smokers for postoperative complications. Providing comprehensive smoking cessation education and counseling can be burdensome for perioperative clinicians with barriers including time constraints and being unable to provide postoperative support. Programs using automated emails have shown an increase in both short and long-term (up to 6 months) abstinence but have not been studied in surgical patients.

Hypothesis: We hypothesize that a virtual perioperative smoking cessation program using automated emails and an eLearning module will be feasible and increase smoking abstinence compared to standard care.

Methods: A novel virtual smoking cessation intervention was developed, consisting of an e-learning module and email messaging program which sent motivational and educational emails before and after surgery. Both components provide information and advice that is tailored to the participant's nicotine dependence. Participants were randomized to the virtual smoking cessation intervention or standard care. Following institutional ethics approval, the rate of recruitment and retention was determined to evaluate this program's feasibility.

Results: A total of 234/2882 (8.1%) of patients seen in the preadmission clinic (PAC) from October 2022-February 2023 were assessed as smokers and 12.3% were never assessed for smoking status. Among these smokers, 68.8% had an activated MyChart account. To date, 46/234 (19.7%) smokers agreed to speak to research staff about the study and were assessed for eligibility, with 20 patients currently enrolled (50% male, mean age: 54.45±9.0 yrs, and average nicotine dependence score: 4±2; Moderate). The current recruitment rate is 43.5% with 100% retention rate of the intervention group participants who have completed the study.

Discussion: The EPIC patient portal could serve as an effective delivery method for this program by providing an

automated smoking cessation intervention in the PAC without increasing the staff's workload. While this study shows that this program currently meets the pre-determined feasibility parameters, many smokers declined to participate in research studies. Further research into methods, such as an opt-out approach, to improve this program's reach should be considered.

Conclusion: Our results indicate that a virtual smoking cessation program using automated emails and an eLearning module is feasible in the preoperative setting.

Key Words

- Education
- Tobacco/Nicotine
- Virtual Care

Learning Objective # 1

Understand the feasibility and acceptability of providing a virtual perioperative smoking cessation program consisting of automated emails and an eLearning module in the surgical setting.

Learning Objective # 2

Understand the utilization of the EPIC patient portal by surgical patients before and after surgery.

Reference # 1

Nguyen Thanh, V., Guignard, R., Lancrenon, S., Bertrand, C., Delva, C., Berlin, I., Pasquereau, A., & Arwidson, P. (2019). Effectiveness of a Fully Automated Internet-Based Smoking Cessation Program: A Randomized Controlled Trial (STAMP). *Nicotine & Tobacco Research*, 21(2), 163–172.

<https://doi.org/10.1093/NTR/NTY016>

Reference # 2

Myers, K., Hajek, P., Hinds, C., & McRobbie, H. (2011). Stopping Smoking Shortly Before Surgery and Postoperative Complications: A Systematic Review and Meta-analysis. *Archives of Internal Medicine*, 171(11), 983–989. <https://doi.org/10.1001/ARCHINTERNMED.2011.97>

Lead Author

Tristen Nimojan

Research Student | University of Toronto, Institute of Medical Science

Co-Author

Dr. Jean Wong

Clinician Investigator | Toronto Western Hospital, University Health Network

Co-Author

Dr. Frances Chung

Clinician Investigator | Toronto Western Hospital, University Health Network

Co-Author

Dr. Sheila Riaz

Clinician Scientist | Toronto General Hospital Research Institute

Co-Author

Dr. Kyle Kirkham

Medical Advisory Committee Chair | Women's College Hospital