Abstract
Introduction: Postoperative nausea and vomiting (PONV) is a major concern for patients undergoing surgery under general anesthesia as it causes subjective distress along with increased complications and delays in discharge from the hospital. Aromatherapy represents a complementary and alternative therapy for the management of PONV.

Purpose: The objective of this study was to examine the effectiveness of aromatherapy (QueaseEASE®, Soothing Scents, Inc) on postoperative nausea and vomiting in same-day surgery patients.

Methods: This was a quasi-experimental study without a control group. The experimental group (n=98) received QueaseEASE® essential oil inhalation. The level of postoperative nausea and vomiting was measured using a standard 0-10 scale up to 24 hours after surgery. Nausea severity was measured first at onset of nausea and again 30 minutes after aromatherapy administration. Data was collected via telephone calls within 2-3 days of surgery.

Results: In total, 27 patients (27.6%) experienced PONV and reported nausea severity scores that showed QueaseEASE® helped to decrease their nausea. Thirty minutes after use, the average improvement in nausea scores was 4.94 ± 2.56 (95% CI 3.98 to 5.91) with an average time to relief of less than 1 minute in 74.1% of patients. Patients have reported perceived effectiveness and favorable improvement with the use of aromatherapy for post-operative nausea. Aromatherapy products have been shown to be well tolerated with no adverse effects, drug interactions, or contraindications.

The aim of this study is to determine the effectiveness of QueaseEASE® aromatherapy pods in the treatment of PONV in patients undergoing same-day hysterectomies, and intra-abdominal and ear-nose-throat (ENT) surgeries.

Methods and Materials
We distributed 100 QueaseEASE® pods to patients scheduled for same-day hysterectomies, hysterectomy, intra-abdominal or ENT surgeries. Informed consent was obtained preoperatively. Up to 24 hours after recovery, patients were instructed to document their episodes of nausea, at onset and within 30 minutes after use. The severity of nausea was recorded using a scale (0-10) where zero indicates no nausea and ten indicates unbearable nausea. Use of traditional antiemetic medications was not excluded pursuant to individual provider choice. Data for concomitant antiemetic medication use, smoking status, patient age, sex, BMI, and previous history of PONV or motion sickness was also recorded.

Data was collected in the form of patient phone call interviews 2-3 days after discharge. Team members followed a script asking questions following up about the patient’s experience with using QueaseEASE®.

Discussion
Prior to the initiation of the project, there was evidence that aromatherapy was a viable option in regards to reducing post-operative nausea and vomiting. The project sought to see if these results could be reproduced amongst same day surgery candidates. The results produced were promising, but had limitations. Previous projects indicated that decreases in nausea after administration of aromatherapy greater than or equal to 5 units were significant. Our average decrease in nausea was as a 4.94 ± 2.56. The value is within parameters of significant improvement when the upper limits of standard deviation are included, however, there are still areas where the project could be improved. The project had limitations associated with the time parameters of the study and population that was selected. A longer time period to collect data could have led to better selection of patients that fit a certain risk group that would have better assess the effectiveness of the products.

Conclusion
Overall the project supports the aromatic therapy implementation in the setting of same day surgery candidates. However, more data is needed to provide a recommendation for mass distribution. Further analysis, with special considerations in the areas of diversity of surgical procedures are needed.

References