# Aromatherapy on 2 South Oncology

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## Background

The standard of treatment for many 2 South Oncology Patients at Sentara Virginia Beach General Hospital (SVBGH) is chemotherapy. Side effects of chemotherapy can decrease one's quality of life and hinder the recovery process. Some of the most common side effects are:

- Nausea
- Anxiety
- Insomnia
- Decreased sleep quality

Studies show aromatherapy with the use of the essential oil *lavandula angustifolia*, commonly known as lavender, can help reduce or eliminate these side effects, Blackburn et al. (2017).

While numerous scholarly works support the use of aromatherapy, studies that utilize robust research designs are limited. This study will expand the knowledge of aromatherapy's effectiveness with oncology patients using a randomized controlled trial (RCT).

## PICOT Question

Among adult oncology patients at SVBGH, does the nightly use of aromatherapy with lavender (*lavandula angustifolia*) essential oil result in a statistically significant decrease in anxiety and nausea levels, and improved sleep quality compared to patients using chamomile oil (anthemis nobilis) or a no-aroma diffuser with sterile water during a 3-day period?

## Methodology

The current study is a RCT with three groups. A computer-based random group assignment generator was used to assign consenting participants to one of three groups:

- *Lavandula angustifoli*a (lavender oil)
- *Anthemis nobilis* (chamomile oil)
- No-aroma (sterile water)

The PROMIS® questionnaires are administered to patients for measurement of changes in anxiety, sleep quality, and gastrointestinal distress over time. Participants answer questionnaires at the following intervals:

- Prior to aromatherapy (Baseline, Day 1)
- Day 4 (During admission)
- Day of discharge or day 7 (End of Study)

To achieve sufficient results, the sample will require 180 adult, consenting, oncology patients with length of stay (LOS) of at least three days. Descriptive statistics will be used to summarize patient characteristics.

Appropriate inferential statistics will be used to analyze group differences in outcome measures.

Confounders such as sleep medications, anxiety medications, anti-nausea medications, and the emetogenicity of the chemotherapies will be addressed in the analysis.


## Sample Description

*Inclusion criteria:*

- Adult patient on 2 South Oncology
- Cancer diagnosis
- LOS ≥ 3 days

*Exclusion criteria*:

- Patient allergies to essential oils
- Asthma
- Expected LOS of ≥ 7 days, but discharged after < 3 days

## Preliminary Results

Data collection began November 1, 2020 but was suspended due to staffing constraints during the COVID-19 pandemic. The study will resume May 1, 2021.

## Conclusions

Once the results are analyzed, we hope to implement a clinical guidance change utilizing aromatherapy as a complementary alternative method (CAM) to address the side effects of chemotherapy first on 2 South Oncology at SVBGH then eventually system-wide.

## References

Blackburn, L., Achor, S., Allen, B., Bauchmire, N., Dunnington, D., Klisovic, R. B., Naber, S. J., Roblee, K., Samczak, A., Tomlinson-Pinkham, K., & Chipps, E. (2017). The effect of aromatherapy on insomnia and other common symptoms among patients with acute leukemia. *Oncology Nursing Forum 44*(4). E185-E193. http://doi.org/ 10.1188/17.ONF.E185-E193