

# Peppermint Oil

## Evaluating efficacy on nausea in patients receiving chemotherapy in the ambulatory setting

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**BACKGROUND:** Nausea is one of the most commonly reported side effects in patients receiving chemotherapy. Patients who experience nausea during chemotherapy may also experience depression, metabolic imbalances, dehydration, decreased ability to function, and treatment delays, which can ultimately affect outcomes.

**OBJECTIVES:** This study aimed to determine the efficacy of a cool damp washcloth with peppermint essential oil versus a cool damp washcloth alone on the self-reported intensity of nausea in patients receiving chemotherapy in the outpatient ambulatory setting.

**METHODS:** 79 adult patients receiving chemotherapy were recruited from an outpatient ambulatory infusion center in the southeastern United States. Patients were separated into two groups (no scent and peppermint) and asked to rate the intensity of their chemotherapy-induced nausea at pre- and postintervention using the Baxter Retching Faces pictorial scale.

**FINDINGS:** The results demonstrated that the use of peppermint oil was effective in decreasing the intensity of nausea experienced by patients compared to a cool washcloth alone.

### KEYWORDS

aromatherapy; chemotherapy-induced nausea; essential oil; peppermint; cancer

### DIGITAL OBJECT IDENTIFIER

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**I**N PATIENTS RECEIVING CERTAIN OR SELECTED CHEMOTHERAPIES, nausea can be a common side effect, and patients who experience nausea as a result of chemotherapy treatment may suffer from decreased quality of life. Patients with cancer who suffer from decreased quality of life as a result of chemotherapy-induced nausea and vomiting (CINV) may also experience depression, metabolic imbalances, dehydration, unexpected office visits, decreased ability to function, and treatment delays, which can affect outcomes and their response to chemotherapy treatment (Harrison et al., 2016; Navari & Aapro, 2016). Research has shown that patients who receive chemotherapy report that CINV is one of the most anxiety-producing, distressing, and feared symptoms of chemotherapy treatment (Ng et al., 2015). Because nausea is a subjective symptom that is patient reported, whereas vomiting is an objective and measurable occurrence, Ng et al. (2015) suggest that clinicians should measure and report nausea as a separate outcome. The use of nonpharmacologic agents, such as ginger and cannabinoids, have not been shown to be effective and, despite advances in antiemetic medications, better methods are needed to manage nausea in patients with cancer (Ng et al., 2015).

In a 2012 systematic review, Lua and Zakaria found only five previously published studies on the use of aromatherapy in patients experiencing nausea and vomiting, with only one article on its use in patients receiving chemotherapy. Based on the literature reviewed, Lua and Zakaria (2012) suggested that these previous studies have methodologic flaws, citing limitations such as poor study designs, small sample sizes, and difficulty recruiting and retaining patients, indicating that additional research on this topic was necessary. According to Lua and Zakaria (2012), emphasis should be placed on integrating holistic care into the treatment plans of patients receiving chemotherapy, including the addition of complementary therapies such as aromatherapy, to help achieve desirable patient outcomes.

Aromatherapy is a common complementary and alternative medicine modality (Blackburn et al., 2017). According to Ferri (2017), aromatherapy is a form of herbal medicine, which uses various oils extracted from plants, trees, and shrubs, that can be administered through skin absorption or inhalation. The fragrant biochemical structures of certain herbs are believed to act in the areas of the brain related to past experiences and emotions and influence how some patients experience nausea (Ferri, 2017). In a 2011 study, Stringer and Donald reported using aromasticks scented with a