

# Using Follow-Up Telephone Calls to Identify Obstacles to Prevention and Treatment of Chemotherapy-Induced Nausea and Vomiting

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**BACKGROUND:** Despite advances in antiemetic regimens, uncontrolled chemotherapy-induced nausea and vomiting (CINV) remains a problem for patients receiving oncology treatment, leading to decreased quality of life and worse treatment outcomes.

**OBJECTIVES:** The purpose of this pilot project was to use follow-up telephone calls to identify barriers related to successful management and prevention of CINV on a single-center outpatient chemotherapy infusion unit.

**METHODS:** A mixed-methods descriptive design was used for this project. Quantitative data were used to assess barriers to management and prevention of CINV. Secondary multiple regression analysis was used to determine whether barriers could predict CINV. Qualitative data were used to analyze common barriers and themes.

**FINDINGS:** Of the patients called (N = 132), 50% identified a barrier to managing and treating CINV, with the most common barrier being knowledge gaps related to proper use of antiemetics.

## KEYWORDS

chemotherapy; nausea; oncology nursing; drug-related side effects; adverse reaction

## DIGITAL OBJECT IDENTIFIER

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**CHEMOTHERAPY-INDUCED NAUSEA AND VOMITING (CINV)** is one of the most common side effects for patients receiving chemotherapy with emetogenic potential (Singh et al., 2023). Li et al. (2022) completed a systematic review of various methods of improving CINV management, yet effective management remains a challenge for patients receiving oncology treatment. Follow-up telephone calls from nurses are a common intervention that have been shown to enhance the quality of care by improving communication between providers and patients (Ebrahimabadi et al., 2021).

## Background

Significant pharmacologic advances in antiemetic regimens have led to improvements in preventing CINV in patients receiving chemotherapy with emetogenic potential. Gupta et al. (2020) reported that about 40% of patients with cancer receiving moderately to severely emetogenic chemotherapy experience poorly controlled CINV despite prescribed antiemetics. These symptoms can lead to decreased quality of life, affect treatment outcomes, and have negative financial implications when therapy is delayed because of CINV-related toxicity or when symptom escalation leads to preventable emergency department visits or hospitalizations (Quinn et al., 2021).

Although chemotherapy is a primary treatment for cancer, some patients and their caregivers have little knowledge about the side effects of chemotherapy or how to manage them (Ebrahimabadi et al., 2021). Education and follow-up are key elements of patient care when receiving chemotherapy because they can reduce the impact of CINV or other side effects and improve treatment outcomes (Ebrahimabadi et al., 2021). At the project site, education is typically provided to patients at timed intervals using various methods before starting treatment. In addition to this standard chemotherapy education, patients are provided with a variety of educational materials prior to starting chemotherapy, ranging from verbal instruction to printed materials sent through the online patient portal.

Patients at risk for nausea are administered antiemetic premedication 30 minutes prior to chemotherapy and are prescribed a home antiemetic regimen to help manage CINV. Patients who strictly adhere to prescribed antiemetic regimens typically have better-managed CINV (Aapro et al., 2022). Before