

# Self-Administered Premedication

## Improving taxane chemotherapy treatment

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**BACKGROUND:** Patients receiving taxane therapy are at risk for hypersensitivity reactions without appropriate premedication management. Patients must understand the importance of taking pre-medications as prescribed to prevent reactions.

**OBJECTIVES:** The objectives of this study were to implement and evaluate a multidisciplinary practice protocol comprised of standardized nursing documentation of premedication regimens, teaching, and patient adherence to at-home premedication in an electronic health record (EHR).

**METHODS:** A new process was developed to provide standardized prescriptions, a personalized instruction sheet for patients and families, and a standardized approach to document adherence and teaching in the EHR. Pre- and post-EHR audits were used twice to evaluate the practice changes.

**FINDINGS:** The findings of the first audit suggested improvement in all practice changes. After the first audit, reinforcement of the changes occurred within the group and with one-on-one meetings. The goal of 90% adherence was met at the second audit.

### KEYWORDS

hypersensitivity reactions; taxanes; premedication; electronic health records

### DIGITAL OBJECT IDENTIFIER

10.1188/17.CJON.234-239

**HYPERSENSITIVITY REACTIONS IN PATIENTS RECEIVING TAXANES** are fairly common and can be fatal without appropriate management (Baker et al., 2009). Acute reactions can occur in patients hours or days following an infusion or, in those without previous reactions, during subsequent infusions, and are characterized by dyspnea, bronchospasm, urticaria, hypotension, and severe erythematous rash. Aggressive preventive measures often require ambulatory patients with cancer to adhere to complicated instructions prior to treatment, including instructions for at-home premedication with dexamethasone (Decadron<sup>®</sup>). Adherence to at-home premedication dosing is a concern for all patients who are sensitive to taxane infusion-associated hypersensitivity reactions, but is particularly concerning in older adults, who often face unique cognitive changes that may increase the risk for errors related to at-home dosing and threaten safety. Straightforward and easy-to-understand instructions should be provided to the growing number of older adults who are treated with chemotherapy and are asked to adhere to complicated premedication dosing to help manage and prevent adverse reactions.

The incidence of taxane infusion-associated hypersensitivity reactions in patients ranges from 8%–50% and generally occurs within the first 10–15 minutes following the first or second taxane infusion (Boulanger et al., 2014). Prophylactic prevention with glucocorticoids, such as dexamethasone, has resulted in decreased incidence rates of hypersensitivity reactions to taxanes (Kwon et al., 2002; Lenz, 2007; Pagani, 2010). The current evidence-based standard of care for taxane premedication dosing recommends the administration of antihistamines, H<sub>2</sub> blockers, and corticosteroids to prevent severe hypersensitivity reactions (Boulanger et al., 2014). The recommended prescribed dose of corticosteroids was 20 mg oral dexamethasone taken 12 and 6 hours before treatment (Feldweg, Lee, Matulonis, & Castells, 2005); more recently, 8 mg of dexamethasone taken 12 and 6 hours before infusion of paclitaxel (Taxol<sup>®</sup>) was recommended (Boulanger et al., 2014). Although hypersensitivity reactions to taxanes most often occur within 10 minutes of the first or second infusion, patients should be closely monitored during and immediately after all infusions regardless of preventive measures (Lenz, 2007). In addition, hypersensitivity reactions exacerbate distress and discomfort in already anxious patients (Markman et al., 2000; Mehta & Roth, 2015). Missed or incorrect