

# Treatment With Oral Anticancer Agents: Symptom Severity and Attribution, and Interference With Comorbidity Management

Sandra L. Spoelstra, PhD, RN, Charles W. Given, PhD, Alla Sikorskii, PhD, Atreyee Majumder, BS, Monica Schueller, BA, and Barbara A. Given, PhD, RN, FAAN

With the expansion of treatment using oral anticancer agents (OAs), care has moved from infusion centers to the home setting, where patients have the responsibility to self-manage treatment (Accordino & Hershman, 2013; Soria et al., 2011; Winkeljohn, 2010). Complicating the management of OAs is that more than 60% of cancers are diagnosed in older adults, and about 80% of patients with cancer have comorbid conditions (Koroukian, Murray, & Madigan, 2006). Age-related physiologic changes have been shown to contribute to increased risk of adverse events during cancer treatment, with grade 3 and 4 toxicities occurring 53% of the time (Hurria et al., 2005, 2006). Comorbidities may exacerbate symptoms, causing additional problems for those taking OAs (Findlay, von Minckwitz, & Wardley, 2008; Weingart et al., 2008, 2011); therefore, healthcare providers must understand symptoms for prescribed OAs to better assist patients to self-manage their treatment.

## Review of the Literature

Factors that may influence OA treatment outcomes are reported in reviews (Bassan et al., 2014; Puts et al., 2013); these factors include age, race, gender, comorbidities, cancer site or stage, side effects of treatment, medication regimen complexity, mental or physical function, and social support. Taking into account factors that may influence treatment is essential when caring for patients who are prescribed OAs.

A large body of literature is devoted to symptoms in those undergoing IV cancer treatment (Cleeland, Zhao, et al., 2013; Hensch & Lövgren, 2014; Yamagishi, Morita, Miyashita, & Kimura, 2009). Other than published drug trials, little is known about symptoms experienced by those prescribed OAs, and the majority of trials were performed in younger individuals with few comorbid conditions (Given, Spoelstra, &

**Purpose/Objectives:** To evaluate the prevalence, severity, and attribution of symptoms, as well as the interference with management of comorbidities, in patients who have been prescribed oral anticancer agents (OAs).

**Design:** Descriptive exploratory study.

**Setting:** A comprehensive cancer center and two community-based oncology programs in the midwestern United States.

**Sample:** 30 adults undergoing OA treatment.

**Methods:** Five phone interviews were conducted during eight weeks. Linear mixed effects and generalized estimating equations were used to examine symptoms and interference over time.

**Main Research Variables:** Symptoms and comorbid conditions.

**Findings:** The mean age of participants was 65.1 years. Fifteen participants were female, 25 were Caucasian, and 23 had comorbidities. Twenty-one patients had late-stage cancer, and rates of adherence were 90%. Fatigue, sleep disturbance, and numbness or tingling in hands and feet were highly prevalent symptoms. Younger age was associated with higher symptom severity ( $p < 0.01$ ) and interference ( $p = 0.01$ ). Patients with more comorbidities tended to report higher symptom severity. Simultaneous IV chemotherapy was not a predictor of symptom severity or interference over age and comorbidity. Symptoms were most frequently attributed to cancer and its treatment. Patients with a greater number of comorbidities were more likely to include comorbidities in symptom attribution and reported interference from the OA with managing comorbid conditions.

**Conclusions:** Symptoms may be more severe in patients prescribed OAs who are younger and have comorbid conditions. More comorbidities and absence of simultaneous IV chemotherapy increased the likelihood of inclusion of chronic conditions in symptom attribution. Patients reported that OA treatment interfered with comorbidity management.

**Implications for Nursing:** Nurses need to take comorbidities into account when caring for patients prescribed OAs because the chronic conditions may influence symptom severity and the ability to manage symptoms.

**Key Words:** age; symptom severity; cancer; oncology; strategies; intervention; comorbid condition; attribution; oral agent; oral anticancer agent

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