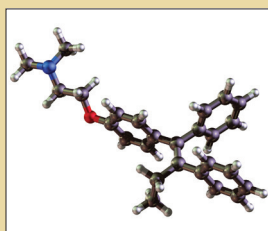


Reasons for Nonadherence to Tamoxifen and Aromatase Inhibitors for the Treatment of Breast Cancer: A Literature Review

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Despite improved breast cancer survival rates with the use of tamoxifen and aromatase inhibitors, patients remain at risk for cancer recurrence and mortality because of nonadherence to medication. The objective of this review was to identify factors associated with nonadherence among patients with breast cancer. Electronic databases were searched for studies, and potentially relevant studies were retrieved and assessed for eligibility. Potential factors associated with nonadherence were identified, and they included patient-related factors (e.g., patient beliefs and knowledge, fear of adverse effects, forgetfulness, smoking, age, race), therapy-related factors (e.g., duration, side effects, additional prescribed medications, treatment interfering with lifestyle), healthcare system factors (e.g., patient/provider relationships), socioeconomic factors (e.g., medication costs, burden, scheduling problems, religion, marital status), and disease-related factors (e.g., comorbidities, stage of breast cancer). Those findings highlight the need for development of interventions to promote long-term adherence in patients with breast cancer.

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Breast cancer is the most prevalent type of cancer among women worldwide (World Health Organization, 2014). Treatment commonly includes estrogen-suppressive or ablative medications. Two types of hormone-based therapies (i.e., tamoxifen [TAM] and aromatase inhibitors [AIs]) have been shown to decrease disease recurrence and mortality rates (Nekhlyudov, Li, Ross-Degnan, & Wagner, 2011). TAM works by inhibiting estrogen action, and AIs work by inhibiting the aromatase enzyme-mediated peripheral conversion of androgen to estrogen (Johnston & Dowsett, 2003). TAM is used to treat pre-, peri-, or postmenopausal women with hormone receptor-positive breast cancer, and AIs are used to treat postmenopausal women with hormone receptor-positive breast cancer (van Herk-Sukel et al., 2010).

TAM and AIs have the potential to provide significant levels of clinical benefit if patients adhere to the regimens for the prescribed time period, which is usually a number of years. However, many women with breast cancer do not follow the protocol. Intentional and unintentional nonadherence to therapies persists and undermines the effectiveness of those therapies (Sedjo & Devine, 2011). Many patients with chronic diseases rarely follow their medication regimens, including patients with cancer who may be regarded as highly motivated because of the clinical consequences associated with nonadherence to the medication (Chlebowski & Geller, 2006). Healthcare providers should encourage women with breast cancer to adhere to the recommended dosage of TAM or AI at prescribed times each day and over the recommended time period. Randomized placebo-controlled