

# A Nursing Educational Intervention to Improve Antiestrogen Adherence and Self-Management of Side Effects

Kaitlyn Fishman, MSN, DNP, AGPCNP-BC, Brittany Rosenthal, MSN, DNP, FNP-BC, Mimi Oupravanh, MSN, DNP, APRN, AGPCNP-BC, and Emily L. Davenport Alonso, MSN, DNP, AGPCNP-BC

Antiestrogens prescribed to reduce breast cancer risk or recurrence can have undesirable musculoskeletal side effects that may lead to early discontinuation of therapy. Previous studies have not focused on nurse-led assessment, education, support, and monitoring of antiestrogen-related side effects for patients at high risk for developing breast cancer and breast cancer survivors. This pilot project evaluated the impact of an educational intervention for participants at a community oncology clinic about self-management of antiestrogen-related side effects.

## AT A GLANCE

- Side effects from antiestrogens are a common factor in early discontinuation of therapy.
- The literature supports nonpharmacologic methods to manage antiestrogen-related musculoskeletal issues, such as exercise and acupuncture.
- Nurse-led telehealth patient education about antiestrogen-related musculoskeletal issues may assist in patient management of side effects and improve adherence to therapy.

## KEYWORDS

antiestrogen; quality of life; breast cancer survivor; musculoskeletal; patient education

## DIGITAL OBJECT IDENTIFIER

10.1188/22.CJON.606-611

Antiestrogens are prescribed for women with hormone receptor-positive breast cancer for at least five years to reduce recurrence (Cavazza et al., 2020). Musculoskeletal (MSK) side effects affect 18%–60% of breast cancer survivors taking antiestrogens (Peppone et al., 2015). Adherence rates of 80% or more during five years of treatment with antiestrogens have shown significant reduction in breast cancer mortality (Cavazza et al., 2020). However, as many as 25% of patients undergoing antiestrogen therapy stop their medications early because of MSK side effects, which is the most common reason for discontinuing antiestrogen medication (Peppone et al., 2015).

About half of patients prescribed antiestrogens develop side effects within the first three months of starting treatment (Bell et al., 2020). Joint pain occurs in up to 50% of women who experience side effects from antiestrogens, and it can be severe enough to cause 20%–33% to discontinue treatment (Bell et al., 2020; Berkowitz et al., 2021; Ernst et al., 2021; Henry et al., 2017; Peppone et al., 2015; Rocque, 2018; Runowicz et al., 2016; Yang et al., 2017). Brier et al. (2018) noted that women who experienced a heightened sense of aging alongside joint pain were less likely to adhere to treatment. Women reporting antiestrogen side effects experienced improved quality of life with consistent monitoring and increased physical activity (Sheppard et al., 2020). Moderate physical activity (e.g., walking programs, aerobic exercise, strength training) can lead to better quality of life and reduce antiestrogen side effect distress (Baglia et al., 2019; Irwin et al., 2015; Nyrop et al., 2016; Sheppard et al., 2020).

A meta-analysis conducted by Liu et al. (2021) supported acupuncture as a safe and effective treatment modality for patients with breast cancer experiencing antiestrogen-induced MSK side effects. Similarly, a systematic review conducted by Yang et al. (2017) found that acupuncture decreases pain related to antiestrogen use. A systematic review by Roberts et al. (2017) concluded that the evidence is not strong enough to broadly recommend acupuncture for MSK side effects from antiestrogen treatment, but it could be recommended on a case-by-case basis.