

## Aromatase Inhibitor Agents in Breast Cancer: Evolving Practices in Hormonal Therapy Treatment

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**Purpose/Objectives:** To review the role of aromatase inhibitor agents with regard to current treatment strategies with hormonal therapy for women with breast cancer.

**Data Sources:** Published articles and books.

**Data Synthesis:** Hormonal therapy is an essential component of the treatment of most women with breast cancer. Aromatase inhibitor agents are becoming an integral part of treatment for women with metastatic breast cancer and recently have become much more prominent in the treatment of women with early-stage breast cancer. The exact role of these agents in adjuvant therapy of breast cancer, either sequentially with the “gold standard” tamoxifen or for the duration of therapy, has yet to be determined.

**Conclusions:** Recent studies with aromatase inhibitor agents are intriguing and suggest an improved side-effect profile and efficacy. The approval of these agents for the adjuvant treatment of breast cancer has led to a significant change in practice.

**Implications for Nursing:** Breast cancer is an extremely common cancer in women, and oncology nurses take care of large numbers of patients with this disease. Oncology nurses need the most recent information so they can discuss aromatase inhibitor agents and therapy with their patients.

### Key Points . . .

- Breast cancer is a very common cancer in women, and hormonal therapy is an essential part of treatment for many patients.
- Aromatase inhibitor agents are showing prominence in the treatment of women with breast cancer in the metastatic and adjuvant settings.
- Recent clinical trial results are intriguing and suggest that aromatase inhibitor agents may be useful in sequential settings with tamoxifen in the adjuvant setting, possibly helping patients who develop tamoxifen resistance.
- Therapy with aromatase inhibitor agents is expensive; further studies need to be performed to determine the exact role of aromatase inhibitor agents in early-stage breast cancer.

### Goal for CE Enrollees:

To enhance nurses’ knowledge about the role of aromatase inhibitors in hormonal treatment for women with breast cancer.

### Objectives for CE Enrollees:

1. Discuss the history of hormonal therapy in the treatment of breast cancer.
2. Outline the current evidence related to the use of aromatase inhibitors in the treatment of breast cancer.
3. Describe the nursing role in caring for patients undergoing hormonal therapy for breast cancer.

**B**reast cancer will affect approximately 211,240 women in 2005 (American Cancer Society, 2005). This makes the disease the most common cancer in women, and it is the second leading cause of cancer mortality in the United States (Banerjee, George, Song, Roy, & Hryniuk, 2004). This cancer may be treated with surgery, radiation therapy, chemotherapy, or hormonal therapy. Hormone receptor status is an important prognostic factor in women with breast cancer because it helps to determine whether hormone therapy will be useful. Approximately 50% of women with breast cancer have estrogen receptor-positive (ER-positive) tumors at diagnosis (Major, 2003). The implementation of hormonal therapy in these patients traditionally has been based on the identification of hormone receptor status and subsequent administration of tamoxifen therapy; however, U.S. Food and Drug Administration (FDA) approval (FDA, 2004) of the agent letrozole (Femara®, Novartis Pharmaceuticals, East Hanover, NJ) following tamoxifen therapy as an adjuvant treatment has provided an exciting change in practice for patients with hormone-responsive breast cancer. Several trials now have looked at other agents to block estrogen and tumor growth. Hormonal therapy now includes tamoxifen as the “gold standard” as well as the aromatase inhibitor agents, inactivators, and pure antiestrogens.

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