

Brand Name: Arimidex

Generic: anastrozole

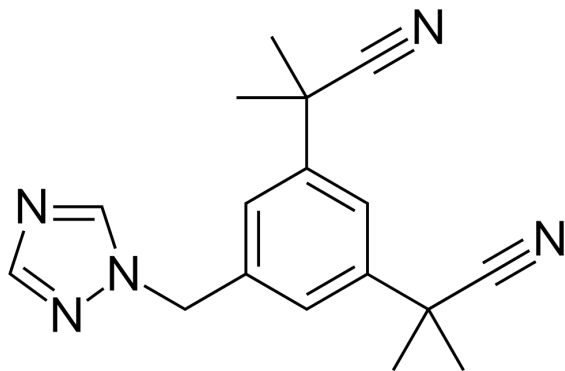
Type: small molecule

Year Accepted/Phase: 1995

Mechanism:

Anastrozole inhibits aromatase, an enzyme involved in estrogen production. By reducing estrogen levels, anastrozole helps slow or reverse the growth of hormone receptor-positive breast cancer cells.

Chemical Structure:



Indication:

Arimidex is indicated for the adjuvant treatment of hormone receptor-positive early breast cancer in postmenopausal women, and for the treatment of advanced or metastatic breast cancer in postmenopausal women whose disease has progressed following tamoxifen therapy.

Clinical trials:

ATAC Trial (Phase III)

Pubmed: <https://pubmed.ncbi.nlm.nih.gov/11078487/>

Purpose: Compare the efficacy and safety of anastrozole with tamoxifen as adjuvant treatment for postmenopausal women with hormone receptor-positive early breast cancer.

Dates: Conducted from 1996 to 2002.

Results: The ATAC (Arimidex, Tamoxifen Alone or in Combination) trial showed that anastrozole significantly improved disease-free survival compared to tamoxifen. At a median follow-up of 33 months, patients receiving anastrozole had a 17% reduction in the risk of recurrence compared to those receiving tamoxifen.

Impact: The positive results led to the FDA approval of anastrozole for the adjuvant treatment of postmenopausal women with hormone receptor-positive early breast cancer in December 2002.

ARNO 95 and ABCSG 8 Trials (Phase III)

Pubmed: <https://pubmed.ncbi.nlm.nih.gov/16084253/>

Purpose: Assess the benefits of switching to anastrozole after 2 years of tamoxifen in postmenopausal women with hormone receptor-positive early breast cancer.

Dates: Conducted from 1996 to 2003.

Results: The combined analysis of the ARNO 95 and ABCSG 8 trials showed that switching to anastrozole after 2 years of tamoxifen significantly improved disease-free survival compared to continuing tamoxifen for 5 years.

Impact: These trials provided evidence supporting the strategy of switching to anastrozole after initial tamoxifen therapy, which influenced treatment guidelines for hormone receptor-positive early breast cancer.

IES Trial (Phase III)

Pubmed: <https://pubmed.ncbi.nlm.nih.gov/15014181/>

Purpose: Evaluate the efficacy and safety of switching to anastrozole after 2 to 3 years of tamoxifen compared to continuing tamoxifen for a total of 5 years in postmenopausal women with hormone receptor-positive early breast cancer.

Dates: Conducted from 1996 to 2004.

Results: The IES (Intergroup Exemestane Study) trial demonstrated that switching to anastrozole after 2 to 3 years of tamoxifen significantly improved disease-free survival and reduced the risk of recurrence compared to continuing tamoxifen.

Impact: The IES trial further reinforced the benefits of sequential adjuvant hormonal therapy, supporting the practice of switching from tamoxifen to anastrozole.