



Mass General Brigham
Mass General Cancer Center

Aromatase Inhibitors

Hormonal therapy teaching

Topics to Discuss:

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Treatment Regimen

What is hormonal therapy?

What are aromatase inhibitors?

How to take aromatase inhibitors

Keeping Track of Your Medication

Side Effects

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Other Information

Drug Interactions

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Treatment Team

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What is Oral Hormonal Therapy?

- Oral hormonal therapy is oral therapy that is taken by mouth and comes in a tablet form.
- It may be prescribed alone or along with other types of cancer therapies such as chemotherapy or oral targeted therapies.
- It works by stopping estrogen in the body from reaching hormone receptors. This:
 - Decreases the chance of breast cancer returning (recurrence)
 - Decreases tumor size
 - Delays tumors from spreading (progression)

1

Treatment Regimen

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Side Effects

What are Aromatase Inhibitors?

- Aromatase inhibitors are a class of medications which suppress estrogen in the body
- They inactivate aromatase, an enzyme which converts androgens to estrogens
- **How do they work?** Aromatase inhibitors lower the level of estrogen in the body
- They are given to people who have a personal history of hormone receptor positive breast cancer or DCIS (ductal carcinoma in situ)
 - They are generally given to post-menopausal patients
 - But can be given to pre-menopausal patients if administered with Lupron (leuprolide) or Goserelin (Zoladex) injections for ovarian suppression
- There are 3 aromatase inhibitors. They all work equally effectively:
 - Letrozole (Femara)
 - Anastrozole (Arimidex)
 - Exemestane (Aromasin)

How to take Aromatase Inhibitors

You will take an aromatase inhibitor once daily:

- Take around the same time each day
- Swallow tablet whole with water. Do not break, chew, or crush your tablet.
- If you miss a dose, skip the dose. Do not take 2 doses at the same time to make up for the missed dose.
- Your doctor will discuss with you how long you will take this medication for

Letrozole (Femara) 2.5mg (1 tablet) once daily with or without food

Anastrozole (Arimidex) 1mg (1 tablet) once daily with or without food

Exemestane (Aromasin) 25mg (1 tablet) once daily within 30 minutes after a meal

Keeping Track of Your Aromatase Inhibitor

- Create a medicine calendar either on paper or in your tablet or phone to keep track of your doses.
- Share the calendar with your cancer treatment team at visits.
- Pill boxes can be used to keep track of your oral hormonal therapy doses. Do not mix other pills in the box you use for your oral hormonal therapy.

Side Effects of Aromatase Inhibitors

Common

- Joint and muscle aches/stiffness
- Hot flashes
- Bone density loss
- Vaginal dryness
- Loss of interest in sex
- Swelling of the hands and/or feet
- Fatigue or tiredness
- Dizziness or feeling lightheaded
- Nausea
- Headache
- Hair thinning

Rare

- High blood pressure
- Effects on cholesterol

Managing Side Effects: Hot Flashes

- Take part in mild, regular exercise
- Stay in a cool environment and use fans
- Wear layers that you can remove
- Avoid/limit caffeine, spicy food, and alcohol, which can worsen hot flashes
- Tell your treatment team if your hot flashes are bothersome. We may be able to prescribe medicine (such as gabapentin, venlafaxine, or oxybutynin) to help
- Tell your treatment team before starting any herbal supplements to treat hot flashes. Some supplements should not be taken during and after breast cancer treatment because they can cause harm.
- Please ask your treatment team for more information if you struggle with hot flashes. We are here to help!

Managing Side Effects: Vaginal dryness

- Vaginal moisturizers are helpful for daily use (not just before sex).
 - Absorbed into the skin & cling to the vaginal lining in a way that mimics natural secretions - maintains vaginal moisture & acidity
 - Examples: Luvena, Fresh Start, K-Y Silk-E, Moist Again, Replens, K-Y Liquibeads
 - Most are available over the counter at your local pharmacy or online
- A lubricant may be used in addition to a moisturizer for lubrication & comfort, especially with sex.
 - Lubricants work by reducing friction associated with thin, dry genital tissue
 - Applied to the vagina and vulva right before sex
 - Examples: Astroglide, FemGlide, K-Y Jelly, Pre-Seed, Slippery Stuff, Coconut Oil
- If the products listed above are not effective, your care team may be able to prescribe Vaginal Estrogen (such as Vagifem/Imvexxy, Femring, or Premarin cream).
- For bothersome discharge, wear a mini-pad throughout the day

Managing Side Effects: Joint and Muscle Pain

- What can help?
 - Regular exercise and stretching
 - Yoga
 - Swimming
 - Hypnosis
 - Acupuncture
 - Tylenol (do not take more than 3000mg/day)
 - Switching to an alternate Aromatase Inhibitor or taking a brief treatment holiday

Managing Side Effects: Bone Density Loss

- Bone density loss is not something patients feel but can be measured on a bone density scan.
 - Bone density scans are repeated every 2 years while you are on an Aromatase Inhibitor.
- To prevent bone loss:
 - Take Calcium and Vitamin D supplements.
 - It is recommended to take 1200mg of calcium and 1000-2000 IU of Vitamin D daily. You may also get calcium from your diet.
 - Your care team can help you determine the best dosage
 - Exercise regularly, including weight bearing exercise
- We may prescribe medication to slow bone density loss if you are in the osteoporosis range.
 - Examples: Fosamax, Reclast (zoledronic acid), Prolia (Denosumab)

Aromatase Inhibitors May Have Drug Interactions

- Some drugs or supplements should not be taken at the same time as other drugs because they can cause side effects or cause the drug to not work well. This is called a drug interaction.
- Tell your treatment team of **ALL** prescription and over-the-counter medications (this includes vitamins and herbal products)
- Some common drug interactions include:
 - Black cohosh
 - Ginseng supplements
 - Red clover
 - St. John's Wort
 - Turmeric supplements
- Talk with your treatment team or pharmacist before starting any new medications or supplements

Supportive Care Resources

- Yoga
- Acupuncture / Acupressure
- Massage
- Support groups
- Survivorship programs
- Workshops
- Music therapy, Art therapy
- To learn more about Supportive Care offerings log onto cancercenterpx.org

Storage and Handling of Aromatase Inhibitors

- Keep this medicine in its original bottle or separate pill box – do not mix other medications into the pill box.
- Store at room temperature in a dry location away from direct light.
- Keep this medicine out of reach from children and pets.
- Wash your hands before and after handling this medicine.
 - If someone else will be handling your aromatase inhibitor, have them wear gloves so they do not come into direct contact with the medicine

Disposal of Aromatase Inhibitors

- If you have unused medication, do not throw it in the trash and do not flush it down the sink/toilet.
- You may dispose of this medication by:
 1. Calling your city or county's trash and recycling service for information on hazardous drug take-back programs in your community.
 2. Bringing unused oral targeted therapy to MGH Boston and disposing in the blue drug take-back receptacles located outside of the Main Lobby Yawkey elevators or near the retail pharmacy in the Wang building.
 3. Asking your treatment team or pharmacist for more information.

Sexuality and Birth Control

- It is fine to be sexually active while on aromatase inhibitors.
- **Aromatase inhibitors can harm a developing baby.** You should not get pregnant or get someone pregnant while on aromatase inhibitors.
- Use a reliable birth control during treatment and for at least **1 month** after receiving the last dose of aromatase inhibitors.
- Use a protective barrier such as a condom throughout aromatase inhibitor treatment. This is also to protect your partner from exposure through body fluids.

Fertility

- Infertility means you cannot become pregnant or make someone pregnant. Infertility can be temporary or permanent.
- Aromatase inhibitors have not been shown to affect fertility in women.
- Do not breastfeed during treatment and for at least 3 weeks after receiving the last dose of aromatase inhibitors. This is to protect your infant from exposure through breast milk.
- Before starting treatment, talk with your treatment team about your fertility and what you can do.
 - Sperm banking for men and egg harvesting for women may be options before starting treatment.
 - Women can still get pregnant even if their menstrual period changes or stops. **Always use a reliable form of birth control.**

Your Breast Cancer Team

- Oncologist
- Nurse Practitioner
- Pharmacist
- Oncology Social Worker
- Practice Nurse
- Infusion Nurse

When to call?

If experiencing:

- Bleeding/unusual bruising
- Sore throat or trouble swallowing
- Dizziness
- Problems with urination
- Uncontrolled nausea, vomiting
- Uncontrolled diarrhea
- Extreme fatigue or weakness
- Cough or shortness of breath
- Confusion or agitation
- Rapid heartbeat
- New swelling in arms/legs, face
- Uncontrolled pain or new pain



Contact Information

Phone Numbers

- Boston: 617-726-6500
- Waltham: 781-487-6100
- Danvers: 978-882-6060

Patient Portal: patientgateway.org



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