



Mass General Brigham  
Mass General Cancer Center

# Neratinib (Nerlynx)

Oral targeted therapy teaching

# Topics to Discuss

## 1

### **Oral Targeted Therapy**

What is Oral Targeted Therapy?

What are TKIs?

## 2

### **Treatment Regimen**

How to Take Nerlynx (neratinib)

Keeping Track of Your Nerlynx (neratinib) Schedule

Side Effects

Drug Interactions

## 3

### **Other Info**

Managing Side Effects

Supportive Care

Storage, Handling, and Disposal

Sexuality and Fertility

## 4

### **Treatment Team**

Your Treatment Team

When to Call

Important Phone Numbers



# What is Oral Targeted Cancer Therapy?

- Oral targeted therapy is cancer therapy that is taken by mouth and comes in a tablet or capsule form.
- Oral targeted therapy may be prescribed along with other types of cancer therapies such as chemotherapy or hormone therapy.
- How it works:
  - Targeted therapy “targets” the changes in cells that cause cancer.
  - Targeted therapy can identify and attack certain types of cancer cells.
  - Targeted therapy can impact the environment in which a cancer cell grows, or it can target and alter cells that help cancer grow.

# What Are Tyrosine Kinase Inhibitors?

- Tyrosine Kinase Inhibitors (TKIs) are a type of oral targeted therapy.
- How does Nerlynx (neratinib) work?
  - Nerlynx (neratinib) is a type of TKI that targets the HER2 receptor
  - Nerlynx (neratinib) blocks enzymes that HER2+ breast cancer cells need in order to grow and survive
  - This prevents the cells from growing, reproducing, and surviving, leading to tumor cell death
- Nerlynx (neratinib) is a TKI for people with a history of HER2+ breast cancer
- Your treatment team will talk with you about how long you will need to take this medication.

# How to Take Nerlynx (neratinib)

- Take neratinib once daily **with food**, at the same time each day.
- Swallow whole with water and do not break, chew, or crush your tablets.
- If you vomit up a dose, do not take an additional dose that day; resume the dosing schedule the next day at the usual time
- If you miss a dose:
  - If you miss a dose, skip it and wait until the next dose
  - Do not take 2 doses at the same time to make up for the missed dose.

# Dose Escalation Instructions

- Neratinib is a medication you take by mouth. Typically, you will take 240 mg (6 tablets) once daily.
- To improve tolerability and decrease incidence of diarrhea, a dose-escalation strategy may be utilized. Your treatment team may tell you to instead take neratinib according to the below table (each tablet of neratinib is 40 mg):

<b>Time on neratinib</b>	<b>Dose and Frequency</b>
Week 1 (days 1 to 7)	Neratinib 120 mg (3 tablets) once daily
Week 2 (days 8 to 14)	Neratinib 160 mg (4 tablets) once daily
Week 3 (day 15 and thereafter)	Neratinib 240 mg (6 tablets) once daily



# Keeping Track of Your Nerlynx (neratinib) Schedule

- 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 chemotherapy doses. Do not mix other pills in the box you use for your oral chemotherapy.

# Side Effects of Nerlynx (neratinib)

## Common:

- Diarrhea
- Nausea, vomiting
- Fatigue
- Muscle aches
- Mouth sores
- Upset stomach (indigestion)
- Decreased appetite
- Rash
- Dry skin, nail disorder
- Weight loss

## Rare:

- Signs of an allergic reaction— wheezing, shortness of breath, swelling of the face, lips, or tongue
- Signs of liver problems—dark urine, yellow skin or eyes, pain in upper stomach area (abdomen)
- Severe diarrhea— 4 or more loose stools per day



# Nerlynx (neratinib) 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 about ALL prescription and over-the-counter medications (this includes vitamins and herbal products)
- Talk with your treatment team or pharmacist before starting any new medications or supplements.
- **Do not eat grapefruit or drink grapefruit juice while taking Nerlynx (neratinib)**, as it can increase the amount of neratinib in your body.
- Do not take St. John's Wort while taking neratinib, as it can decrease the amount of drug in your body
- **Avoid using medications for heartburn or upset stomach**

# Managing Diarrhea

## Diet:

- Eat a bland diet that is easy to digest until diarrhea resolves
- BRAT diet: bananas, rice, applesauce, toast
- Do not eat high fiber foods (raw vegetables/fruits, whole grains, nuts, seeds, beans)
- Do not have dairy, alcohol, caffeine, spicy and fried foods

## Stay Hydrated:

- Drink 8-10 glasses (64-80 ounces) of non-caffeinated, non-carbonated beverages daily
- Gatorade, Pedialyte, or other beverages with electrolytes may be recommended with severe diarrhea

# Medication for Management of Diarrhea

- Imodium (loperamide) is the medication of choice for treating diarrhea during cancer treatment. It is available over the counter.
- **Instructions for use:**
  - **Take 2 tablets (4mg) with your first loose/watery stool**
  - **Then take 1 tablet (2mg) with each loose stool thereafter**
  - **Do not take more than 8 tablets (16mg) in 24 hours**
- Contact your care team if you continue to experience diarrhea after taking Imodium for 24 hours
- Refer to <https://www.massgeneral.org/assets/mgh/pdf/cancer-center/breast-cancer/bowel-management.pdf> for more information.

# Managing Diarrhea: Additional Medications

- In some cases, your provider may instruct you to take Imodium (loperamide) with Nerlynx (neratinib) to prevent diarrhea. *Take according to the below table only if instructed by your treatment team:*

Time on neratinib	Loperamide Dose	Frequency
Weeks 1-2 (days 1-14)	4 mg	Three times daily
Weeks 3-8 (days 15-56)	4 mg	Twice daily
Weeks 9-52 (days 57-365)	4 mg	As needed (maximum 16 mg/day)

- Colestipol** or **budesonide** may be added to help reduce the incidence of diarrhea in addition to loperamide. If prescribed, take according to the recommended dosing below or as instructed by your treatment team:
  - Budesonide** 9 mg orally once daily in the morning for the first 28 days
  - Colestipol** 2 g orally twice daily for the first 28 days; take other drugs 1 hour before or 4 hours after colestipol



# Managing Nausea/Vomiting

- Your treatment team may prescribe you one or more of the following medications for nausea:
  - Zofran (ondansetron)
    - 1 tablet (8mg) every 8 hours ***as needed*** for nausea
  - Compazine (prochlorperazine)
    - 1 tablet (10mg) every 6 hours ***as needed*** for nausea
  - Ativan (lorazepam)
    - 1 tablet (1mg) every 6 hours ***as needed*** for nausea



# Managing Reflux and Heartburn

- **Avoid** using certain over the counter medications for heartburn or upset stomach, such as omeprazole (Prilosec), esomeprazole (Nexium), or famotidine (Pepcid, Zantac). Contact your treatment team if this concerns you.
- If you take an antacid medicine such as Tums or calcium carbonate, take Nerlynx (neratinib) at least 3 hours after the antacid medicine.



# Supportive Care Resources

- Yoga
- Acupuncture / Acupressure
- Massage
- Support groups
- Survivorship programs
- Workshops
- Music therapy, Art therapy
- To learn more about all our Supportive Care offerings log onto [cancercenterpx.org](https://cancercenterpx.org)

# Storage and Handling of Oral Targeted Therapy

- 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.



# Disposal of Oral Targeted Therapy

- 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:
  - Calling your city or county's trash and recycling service for information on hazardous drug take-back programs in your community.
  - 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. MGH Waltham does not accept unused oral chemotherapy.
  - Asking your treatment team or pharmacist for more information.

# Sexuality and Birth Control

- It is fine to be sexually active while receiving Nerlynx (neratinib).
- **Nerlynx (neratinib) can harm a developing baby.** You should not get pregnant or get someone pregnant while take either of these medications.
- Women may notice a change in their menstrual periods during chemotherapy treatment. Bleeding may lessen, become spotty, or stop completely. Women can still get pregnant even if their menstrual period changes or stops. **Always use a reliable form of birth control.**
- Use a reliable barrier contraceptive (e.g. condoms) method during treatment **and for at least 1 month after the last dose of Nerlynx (neratinib).**
- Tell your healthcare team right away if you have unprotected sex or if you think that birth control has failed.



# Fertility

- Your treatment can affect fertility in women and men.
- Infertility means you cannot become pregnant or make someone pregnant. Infertility related to therapy can be temporary or permanent.
- Before starting treatment, talk with your healthcare team about preserving your fertility and what you can do.
  - Egg harvesting for women and sperm banking for men may be options



# Your Breast Cancer Team

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



# When to call?

*If experiencing:*

- Fever of 100.4F (38C) or higher
- Chills
- Bleeding/unusual bruising
- Sore throat or trouble swallowing
- Dizziness
- Problems with urination
- Uncontrolled nausea, vomiting
- Uncontrolled diarrhea
- Flu-like symptoms
- 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
- COVID-19 or other infectious disease exposures



# Contact Information

- For urgent matters, please call. For all other non-urgent matters, please use the patient portal
- **Phone Numbers:**
  - Boston: 617-726-6500
  - Waltham: 781-487-6100
  - Danvers: 978-882-6060
- **Patient Portal:**
  - [patientgateway.org](http://patientgateway.org)





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