When you sign up, you will receive:

• E-mails at key times to help you stay on track with your treatment as prescribed by your healthcare provider (HCP).

• Brochures with helpful tips and advice on how to manage your treatment.

Our free support program can help answer questions such as:

• What is Tarceva used to treat?
• How do I take Tarceva?
• What are the benefits and risks of Tarceva?
• What can I expect while on treatment with Tarceva?
• Can I get help paying for my treatment with Tarceva?

The Genentech Patient Resource Center is available by calling (877) TARCEVA. Our patient resource center is dedicated to getting patients and caregivers to the right resources.

Information provided through the Tarceva Patient Support Program does not take the place of talking to your HCP about your medical condition or treatment.

For more information about Tarceva, call (877) TARCEVA or visit www.tarceva.com.

For patients who are starting Tarceva and for their caregivers

For more information about Tarceva, call (877) TARCEVA or visit www.tarceva.com.

The safety and effectiveness of Tarceva in pediatric patients have not been established.
When you sign up, you will receive:

• E-mails at key times to help you stay on track with your treatment as prescribed by your healthcare provider (HCP).

• Brochures with helpful tips and advice on how to manage your treatment.

Our free support program can help answer questions such as:

• What is Tarceva used to treat?

• How do I take Tarceva?

• What are the benefits and risks of Tarceva?

• What can I expect while on treatment with Tarceva?

• Can I get help paying for my treatment with Tarceva?

The Genentech Patient Resource Center is available by calling (877) TARCEVA 9/a.sc/m.sc-8 /p.sc/m.sc ET Monday-Friday. Our patient resource center is dedicated to getting patients and caregivers to the right resources.

Information provided through the Tarceva Patient Support Program does not take the place of talking to your HCP about your medical condition or treatment.

For more information about Tarceva, call (877) TARCEVA or visit www.tarceva.com.

Please see pages 5, 9, 11-13, and enclosed full Product Information for Important Safety Information.
The Tarceva Patient Support Program is a free source of information and resources that was designed to help you throughout treatment

When you sign up, you will receive:

- **E-mails** at key times to help you stay on track with your treatment as prescribed by your healthcare provider (HCP).
- **Brochures** with helpful tips and advice on how to manage your treatment.

Our **free support program** can help answer questions such as:

- What is Tarceva used to treat?
- How do I take Tarceva?
- What are the benefits and risks of Tarceva?
- What can I expect while on treatment with Tarceva?
- Can I get help paying for my treatment with Tarceva?

The Genentech Patient Resource Center is available by calling (877) TARCEVA Monday-Friday. Our patient resource center is dedicated to getting patients and caregivers to the right resources.

Information provided through the Tarceva Patient Support Program does not take the place of talking to your HCP about your medical condition or treatment.

**Using this guide**

The materials in this guide can be helpful resources throughout your treatment. Keep this guide in a place where you can use it often. It can be a handy reminder for how to care for yourself during treatment. This guide can also help you talk with your healthcare provider (HCP) about any questions you have or changes you may notice. This brochure is not intended to be a substitute for the advice of your healthcare team.

If you have questions about Tarceva, call (877) TARCEVA or visit www.tarceva.com for more information.

The safety and effectiveness of Tarceva in pediatric patients have not been established.
Hearing that you have cancer can be very difficult for you and your caregiver. But there is hope with treatments that may help—and support is available from people who care. The Tarceva Starter Guide can help guide you and your caregiver through this time by helping you learn more about treatment and where you can go for support.

Who is Tarceva (erlotinib) for?

- Tarceva is prescribed for patients with non-small cell lung cancer (NSCLC) whose cancer has spread to other parts of the body and that has certain types of epidermal growth factor receptor (EGFR) mutations. Your healthcare provider will perform a test to make sure that Tarceva is right for you.
- It is not known if Tarceva is safe and effective in EGFR mutations other than those included in the FDA-approved prescribing information.
- Tarceva is not meant to be used at the same time as certain types of chemotherapy for NSCLC.

What are the possible side effects of Tarceva?

Tarceva can cause serious side effects, including:

- **Lung problems (called interstitial lung disease [ILD] events).** Tarceva has been shown to cause lung problems, including death. Symptoms of lung problems may include shortness of breath, cough, and fever. Tarceva may need to be stopped if you have any of these symptoms.
- **Liver and kidney problems.** Tarceva has been shown to cause severe kidney and liver problems, including death. Some people had their kidneys and liver stop working. Let your HCP know if you have a history of liver or kidney disease.

“
We love to sit at night and talk about where we want to go...
— Tarceva patient

Individual results may vary.

To learn more about Tarceva, call (877) TARCEVA or visit www.tarceva.com.

Please see pages 5, 9, 11-13, and enclosed full Product Information for Important Safety Information.
Questions and concerns
When you and your caregiver find out you have cancer, it’s normal to feel afraid and anxious. It can also be hard to remember the things your healthcare provider (HCP) tells you. This guide can help you learn about treatment with Tarceva and how it may help.

About the Tarceva Starter Guide
This guide has 4 sections so that you can find the information you need:

About Tarceva
How Tarceva may help; possible side effects; how to take Tarceva

Tips for Skin and Rash Care
Skin care tips; treating skin rash

Tips for Managing Diarrhea
Drinking fluids; treating diarrhea

Resources
Finding patient and caregiver support services; the Treatment Planner, a tool to help you keep track of important information during your treatment

The information included in this booklet is provided for educational purposes only and is not intended to replace the advice of your HCP.
“When my oncologist said I had non-small cell lung cancer that had spread to other parts of my body, that really scared me. I just sat there a little bit numb. I probably didn’t absorb everything that he said after that. Everything was a blur.”

— Tarceva patient

About Tarceva

What is Tarceva?
Tarceva is a pill you take by mouth once a day, at least 1 hour before or 2 hours after eating.

How Tarceva may work
Tarceva is not a conventional chemotherapy drug. Tarceva can affect both healthy cells and cancer cells, but the way it works is not fully known. Tarceva may interfere with the activity of a specific protein called epidermal growth factor receptor (EGFR). Some cancer cells have EGFR mutations that may help it to grow and divide. Your healthcare provider will perform a test to determine if your cancer has any EGFR mutations and make sure that Tarceva is right for you.

Select Important Safety Information
What are the possible side effects of Tarceva? (cont’d)
Tarceva can cause serious side effects, including:

• **Stomach and intestinal problems (called gastrointestinal [GI] perforation).** Tarceva has been shown to cause GI perforation, which has led to death. A GI perforation is a hole that develops in your stomach or intestine. Tarceva patients may be at a higher risk for GI perforation if they:
  – Are taking medicines including those that may help block the growth of blood vessels; steroids; non-steroidal anti-inflammatory drugs (NSAI�s); and certain chemotherapies. Always tell your HCP about any medicines you are taking.
  – Have a history of ulcers or other stomach disease.
• **Serious skin conditions.** Tarceva has been shown to cause blistering and skin peeling. This may result in other serious skin disorders or death.

Please see pages 5, 9, 11-13, and enclosed full Product Information for Important Safety Information.
Possible benefits of Tarceva

• Tarceva is prescribed for patients with non-small cell lung cancer (NSCLC) whose cancer has spread to other parts of the body and that has certain types of epidermal growth factor receptor (EGFR) mutations. Your healthcare provider will perform a test to make sure that Tarceva is right for you.

• It is not known if Tarceva is safe and effective in EGFR mutations other than those included in the FDA-approved prescribing information.

• Tarceva is not meant to be used at the same time as certain types of chemotherapy for NSCLC.

In a large study of 174 patients with NSCLC whose tumors tested positive for certain types of EGFR mutations, Tarceva was studied as initial therapy compared with conventional chemotherapy:

• Patients who took Tarceva had a 66% lower risk of the cancer getting worse or of death than those who received chemotherapy.

• Patients who took Tarceva had a median\(^*\) progression-free survival\(^†\) time of 10.4 months.

• Tumors shrank or disappeared for 65% of patients who took Tarceva and 16% of patients who received chemotherapy.

Select Important Safety Information

What are the possible side effects of Tarceva? (cont’d)

Tarceva can cause serious side effects, including:

• **Blood, bleeding, and clotting problems.** Tarceva has been shown to cause certain blood problems and other bleeding and clotting problems. These have led to stroke and death.

• **Eye disorders.** Tarceva has been shown to cause dry eyes, unusual eyelash growth, or swelling of the cornea. The cornea is the clear coating of the eyeball. This swelling may irritate or damage the eye.

• **Bleeding events when taking warfarin with Tarceva.** Tell your HCP if you are taking a blood thinner, such as warfarin. Taking Tarceva with this medicine can cause death.

• **Pregnancy.** Tarceva can harm an unborn baby. Women should use effective birth control during treatment and for at least 1 month after the last dose of Tarceva. Tell your HCP if you have become pregnant, or if you think you may be pregnant, during treatment with Tarceva. Do not breast-feed during treatment with Tarceva and for 2 weeks after the final dose.

\(^*\)Median is the midpoint of a range of numbers.

\(^†\)Progression-free survival is a term used to describe the amount of time that a patient lives without their disease getting worse or progressing. In a clinical trial, measuring progression-free survival is one way to see how well a treatment works.

\(^\dagger\)Overall survival is a term used to describe the amount of time a patient lives after they are diagnosed or start treatment. In a clinical trial, measuring overall survival is one way to see how well a treatment works.

Please see pages 5, 9, 11-13, and enclosed full Product Information for additional Important Safety Information.
When should I call my HCP while taking Tarceva?
Call your HCP if you have:
• Serious or ongoing diarrhea, nausea (feeling sick to your stomach), loss of appetite, or vomiting.
• New or worsening shortness of breath or cough.
• Eye irritation.
• New or worsening rash, blistering, or peeling of the skin.
• Any changes in smoking habits.

What are some of the most common side effects of Tarceva?
• In 1st-line NSCLC treatment: Diarrhea, weakness, rash, cough, shortness of breath, loss of appetite (not wanting to eat).

What should I know about skin (including rash), hair, and nail problems or diarrhea while taking Tarceva?
• Skin (including rash):
  — While taking Tarceva, rash could happen or get worse if the skin is exposed to the sun. You may want to use alcohol-free lotions and sunscreens or avoid being out in the sun.
  — Your skin and nails may get darker. You may also have dry skin that may or may not crack. This most often happens with rash.
  — Talk with your HCP if you notice a rash. He or she may be able to help you manage it.
• Hair and nails: Hair and nail problems have been seen in patients taking Tarceva. These include increased hairiness and brittle or loose nails.
• Diarrhea: Diarrhea can usually be treated with anti-diarrhea medicine. Your HCP can help you find the right medicine for you.

What should I do if I am taking or am prescribed other medicines or supplements while taking Tarceva?
• Always tell your HCP about all of the medicines and herbal supplements you are taking.
• DO NOT start taking any new medicines or herbal supplements before talking with your HCP.
• DO NOT eat grapefruit or drink grapefruit juice before talking with your HCP.

Will smoking affect my treatment with Tarceva?
• If you smoke, you should stop smoking before you start treatment with Tarceva.
• If you continue to smoke, your treatment with Tarceva may need to be adjusted. Talk with your HCP if you continue to smoke.

Always talk with your HCP about any side effects you may have with Tarceva.

You may report side effects to the FDA at (800) FDA-1088 or www.fda.gov/medwatch. You may also report side effects to Genentech at (888) 835-2555.
Your dosing schedule

I am going to take Tarceva:
Pick the time that is best for you. (Check only ONE)

- **Before** I eat _______ (breakfast/lunch/dinner)
  
  Write the time you eat: _______

  You will need to take Tarceva at least
  1 hour before you start eating.

  Write the time you will take Tarceva: _______

  OR

- **After** I eat _______ (breakfast/lunch/dinner)
  
  Write the time you eat: _______

  You will need to take Tarceva at least
  2 hours after you finish eating.

  Write the time you will take Tarceva: _______

Be sure to take Tarceva at the same time every day.
Is Tarceva working?

How will I know if Tarceva is working?

You may feel nervous or fearful as you wait to find out if Tarceva may be working. The best way to tell if Tarceva is working is through regular visits with your healthcare provider (HCP). Test results can help your HCP see if your tumor has shrunk or stopped growing or if the cancer has stopped spreading to other parts of your body.

To see how Tarceva may be working for you, your HCP may take a chest x-ray or do a computed tomography (CT) scan or other imaging tests.

“My passion is working in my garden... right there on my hands and knees, seeing things grow.”
— Tarceva patient

Tips for Skin and Rash Care

If you have questions or concerns about these or other side effects, talk with your healthcare provider.

Please see pages 5, 9, 11-13, and enclosed full Product Information for Important Safety Information.
Tips for skin care

Skin rash is a common side effect of Tarceva. In clinical studies, most people who took Tarceva developed a skin rash. Skin rash commonly appears within the first month of starting Tarceva and is usually mild to moderate. Severe rash is uncommon but has occurred in some people. You may also notice other skin changes. These include itching, dry skin, or redness around the fingernails.

This section can help you learn how to care for your skin every day.

What should I know about skin problems (including rash) while taking Tarceva?

• Your skin may look red with little bumps. This may look like acne, but it is not. The rash usually appears on the face, upper chest, and back. It could spread to other parts of the body. The skin may start peeling. The rash could happen or get worse if the skin is exposed to the sun. You may feel itching, tenderness, or burning where you have the rash.

• Your skin and nails may get darker. You may also have dry skin that may or may not crack. This most often happens with rash.

• While taking Tarceva, you may want to use alcohol-free lotions and sunscreens or avoid being out in the sun.

• In Tarceva clinical trials, rash was treated with steroids or antibiotics. Using acne medicines may dry your skin and make the rash worse.

• Talk with your HCP if you notice a rash. He or she may be able to help you manage it.

“I did get the rash. At first I thought it might be an allergic reaction or acne. But then I realized it was the rash my nurse told me about.”

— Tarceva patient
Tips for managing rash

What to do if you get a rash

Rash is a common side effect of Tarceva. If you get a rash, it may be upsetting. But **do not stop taking Tarceva unless your healthcare provider (HCP) tells you to stop.** Call your HCP and let him or her know. Your HCP may:

- Prescribe or recommend products to manage the rash.
- Decrease the amount of Tarceva you take, tell you not to take it for a short time, or tell you to stop taking it completely.

**Important:** The rash may look like acne (pimples). Acne medicine may irritate the skin, which can make the rash worse.

### Tips for treating the rash

- **Clean gently, moisturize, and protect your skin.** Review the skin care steps on the previous pages.
- **Do not scratch the rash.** For itchy skin, your HCP may prescribe topical corticosteroids or recommend other products.
- **Do not take Tarceva with food.** This may make the rash worse. See the “About Tarceva” section of this guide for more information about how to take Tarceva.

This information does not take the place of talking to your HCP about your medical condition or treatment.

You may report side effects to the FDA at (800) FDA-1088 or www.fda.gov/medwatch. You may also report side effects to Genentech at (888) 835-2555.

To learn more about Tarceva, call (877) TARCEVA or visit www.tarceva.com.

Please see pages 5, 9, 11-13, and enclosed full Product Information for additional Important Safety Information.

**Three steps to take care of your skin every day**

1. **Clean** your skin gently.
   - Use mild soap products.

2. **Moisturize** your skin so it does not get dry.
   - For your hands, feet, nails, and skin, use alcohol-free moisturizing products.

3. **Protect** your skin from damage.
   - Stay out of the sun as much as you can.
   - **SPF 30** When you are outside, use sunscreen with an SPF of 30 or higher and always wear a hat. Use sunscreen products that contain titanium dioxide.
   - If you wear makeup, ask your healthcare provider (HCP) what kind is best for you.

If you do get a rash, there are a number of things you can do.

On the next pages, you will learn how to work with your HCP to treat the rash.

To learn more about Tarceva, call (877) TARCEVA or visit www.tarceva.com.

Please see pages 5, 9, 11-13, and enclosed full Product Information for additional Important Safety Information.
Remember: Acne medicine may irritate the skin, which can make the rash worse.
Use alcohol-free moisturizers and lotions.

Your Skin Care Shopping List
Consult with your healthcare provider (HCP) before beginning any treatment plan. He or she may prescribe or recommend products to manage the rash.
Here is a list of some brands that may help you care for your skin:

- Mild soap
  - Cetaphil®
  - Dove®
  - Vanicream™
  - Other

- Moisturizer
  - Aquaphor®
  - Vanicream™
  - Eucerin®
  - Other

- Lotion for hands, feet, and nails
  - AmLactin®
  - Eucerin®
  - Aquaphor®
  - Other

- For itchy skin
  - Sarna® Ultra Cream
  - Other

- Sunscreen (SPF 30 or higher):
  - ___________________________

- Makeup (brand):
  - ___________________________

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Talking points
If you have a rash, answer the questions below to help you describe the rash to your healthcare provider (HCP).

When did you first notice the rash?

What, if anything, have you used to treat the rash?

Check off the word or words that best describe what the rash looks like.

- Red
- Blotchy
- Looks like pimples (acne)
- Dry skin

What does the rash feel like? (Check all that apply)

- Itchy
- Tender
- Sore
- Other (please describe):

Where is the rash? (Check all that apply)

- Face
- Forehead
- Shoulders
- Back
- Chest
- Other (where):

Is your rash interfering with your daily activities?

- Yes
- No

If yes, please describe how:

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"I encourage my patients to use a talking points list and to keep it by the phone." — Oncology nurse

To learn more about Tarceva, call (877) TARCEVA or visit www.tarceva.com.
Tips for Managing Diarrhea

If you have questions or concerns about these or other side effects, talk with your healthcare provider.

Please see pages 5, 9, 11-13, and enclosed full Product Information for Important Safety Information.
“I want my patients to call if they have problems. We have to know that they have diarrhea so that we can make sure they drink enough fluids.”

— Oncology nurse

Tips for managing diarrhea

Diarrhea can usually be treated with anti-diarrhea medicine. Your healthcare provider (HCP) can help you find the right medicine for you.

If you get diarrhea, it will most likely happen during the first month of treatment with Tarceva. This section will help you learn how to manage diarrhea if you get it.

Here are some tips to help you manage diarrhea

Try to DO these things:

• Drink 8 cups of water or other decaffeinated drinks every day.
• Eat mild foods, such as bananas, white rice, applesauce, dry toast, crackers, plain pasta, eggs, poultry, or baked potatoes.
• Eat frequent small meals and snacks.

Try to LIMIT these things:

• Drinks that have caffeine, such as colas, coffee, or tea.
• Foods that are high in fiber, fatty, or spicy, such as broccoli, nuts, or hot peppers.
• Milk or dairy products.

This information does not take the place of talking to your HCP about your medical condition or treatment.
Keep track of the number of times per day you have diarrhea, how much you drank, and any changes in your weight. The talking points on the next two pages can help you talk with your healthcare provider (HCP).

If you get diarrhea, call your HCP. He or she may:
- Advise you to take over-the-counter loperamide to help manage diarrhea.
- Prescribe other products to help you manage the diarrhea.
- Decrease the amount of Tarceva that you take, tell you not to take it for a short time, or tell you to stop taking it completely.

Watch for dehydration
Dehydration is serious. It means you do not have enough fluid in your body. That is why it is important to drink water throughout the day.

Let your HCP know if you have any of these signs of dehydration:
- Dry mouth
- Dizziness
- Fever
- Little or no urine
- Confusion

Call your HCP if your diarrhea does not improve.

You may report side effects to the FDA at (800) FDA-1088 or www.fda.gov/medwatch. You may also report side effects to Genentech at (888) 835-2555.

Use this section to help you talk with your healthcare provider (HCP) about diarrhea.

Your bowel movements
When did you first start having diarrhea?
- Before taking Tarceva
- Since I started taking Tarceva

How many loose stools have you had in the last 24 hours?
- 1–2
- 3–4
- More than 4

How would you describe the stools?
- Loose, watery
- Soft
- Firm, normal
- Hard

Your other symptoms
When you have diarrhea, do you have other symptoms?
- Dizziness
- Stomach cramps
- Fever
- Weakness
- Dehydration
- Nausea/vomiting
- Other (please describe):

If you have any of these symptoms along with diarrhea, call your HCP right away.

How you are treating diarrhea
How much liquid did you drink in the last 1–2 days?
(1 cup = 8 ounces)
- 1–3 cups
- 4–6 cups
- 6–8 cups
- More than 8 cups

What did you drink in the last 1–2 days?
- Water
- Coffee/tea
- Milk
- Juices
- Soft drinks
- Liquor
- Other (please describe):

Please see pages 5, 9, 11–13, and enclosed full Product Information for Important Safety Information.
Talking points (cont’d)

What medicines have you taken to treat the diarrhea in the last 2 to 3 days?
- None
- Over-the-counter medicines ____________________________
- Prescription medicines _______________________________
- Herbal medicines ______________________________________
- Other (please describe): ________________________________

What other medicines have you taken in the last 2 to 3 days?
- None
- Other (please describe): ________________________________

Your current weight: _______ pounds. Tell your healthcare provider (HCP) if your weight is lower than usual.

Notes from talking with my HCP: ______________________________
_________________________________________________________
_________________________________________________________
_________________________________________________________
_________________________________________________________

To learn more about Tarceva, call (877) TARCEVA or visit www.tarceva.com.
“He is there for me. The important thing is the emotional support I get from him.”

— Tarceva patient

Understanding feelings and emotions

When you have cancer, it can be a very emotional time for you and your family and friends. Emotions can include fear, anger, sadness, and grief.

Here are some tips to help you and your caregiver deal with the emotional challenges you may be facing:

- Ask for support from those around you.
- Maintain your daily routine as much as possible.
- Try to stay active, eat healthy foods, and get enough sleep.
- Learn how to help manage your stress.

“My husband comes to doctors’ appointments with me. He is another set of ears to remember what the doctors say. He also comes up with questions to ask that I’ve forgotten.”

— Tarceva patient
Tips for getting support

Many resources are available for you and your family and friends. Having this support can help all of you to cope with the disease. You may want to consider doing some of these things:

**Discuss your fears and concerns.** If you are feeling sad or anxious, tell someone about it. Depression and anxiety are very common in people with cancer and may need to be treated. Your healthcare provider (HCP) may be able to help. Or he or she may refer you to other healthcare professionals in your area who can help.

**Join a support group.** Talking with other people who have cancer can help you learn how they are managing challenges. It is also an opportunity to support each other.

**Keep a journal.** Writing about your feelings, emotions, and frustrations can help you cope. It can also help to make a list of the questions you have for your HCP.

**Seek support.** Talk with your minister, rabbi, or other religious leader. Trained counselors and hospital chaplains can also offer support.

Information for caregivers

**Who is a caregiver?**

Some caregivers are family members, friends, or simply others who provide you with needed support. Giving care might mean being there to help with day-to-day activities, such as going with you to medical visits or preparing meals. A caregiver can also support you emotionally by talking, listening, and working through challenges with you.

**Changing roles, changing feelings**

A caregiver is often an active part of someone’s life before cancer. But living with cancer can change the roles that you are used to. A caregiver may have to take on new responsibilities. Stress and confusion are normal at this time. Seeking help from a counselor or psychologist can help.

**Dealing with ups and downs**

Many caregivers say they have a range of strong emotions that seem to come and go during the cancer journey. The hopeful highs and the depressing lows can feel like being on a roller coaster. Sadness, fear, hope, anger, hopelessness, worry, grief—all these feelings are normal and are felt by many caregivers. Your caregiver may want to reach out to one of these organizations for caregivers:

- **Family Caregiver Alliance (FCA)**  
  [www.caregiver.org](http://www.caregiver.org)  
  (800) 445-8106

- **Caregiver Action Network**  
  [www.caregiveraction.org](http://www.caregiveraction.org)  
  (202) 454-3970

Genentech and Astellas are not affiliated with and do not endorse any of the listed organizations. The information provided by Genentech and Astellas is for informational purposes only and is not meant to replace an HCP’s advice.

To learn more about Tarceva, call (877) TARCEVA or visit [www.tarceva.com](http://www.tarceva.com).
Information for caregivers (cont’d)

Tips for caregivers on taking care of themselves
Caregivers often put their own needs and feelings aside. But they need to stay healthy physically and mentally. It’s important for them to care for themselves and let others help them, too.

With help from others, your caregiver may be able to:
• Stay active and as healthy as possible.
• Focus on the important things and let friends or family help with day-to-day tasks, such as food shopping or doing the laundry.
• Realize that it is okay to let go of responsibilities in areas where others have more experience or interest, such as legal or financial issues.

Below are some tips for things you and your caregiver could do that might help you to restore the mind, body, and spirit. Always talk with your healthcare provider (HCP) before starting or increasing physical activity.
• Exercise, do yoga, or meditate.
• Go for a walk or a drive.
• Read, rest, or take a nap.
• Work in the yard or keep up with a hobby.

Asking for help
Often family or friends want to help but don’t know what’s needed or how to help. It can help if your caregiver lets others know how and when they can help. Your caregiver may need someone to:
• Help with household chores—cooking, cleaning, shopping, yard work, child care.
• Drive to medical appointments or pick up a child from school.
• Talk with someone about his or her concerns or feelings.

Financial resources — we’re here to help

Tarceva Access Solutions®
Genentech Access Solutions may be able to help you understand how to get the Genentech medicine you need, even if you can’t pay for it.

Genentech Access Solutions can:
• Help you understand your health insurance coverage by finding out:
  — If your health insurance covers your Genentech medicine
  — How much your co-pay will be for your medicine
• Refer you to patient assistance options:
  — Genentech BioOncology® Co-pay Assistance Program
  — Independent co-pay assistance foundations
  — The Genentech® Patient Foundation

To find out which of our assistance options is right for you, visit Genentech-Access.com/tarceva/patients or call (888) 249-4918.

Genentech BioOncology® Co-pay Assistance Program
There are many costs to cancer care. For those who are eligible, the Genentech BioOncology® Co-pay Assistance Program applies only to the co-pay cost of the prescription for Tarceva.

Once enrolled in the program, eligible patients could pay as little as $5 for Tarceva. The Genentech BioOncology® Co-pay Assistance Program will cover the patient’s remaining out-of-pocket responsibility, including deductibles, co-insurance, and co-pay costs—up to $25,000 for each product every 12 months. Please see the terms and conditions on the next page for more details on the program and eligibility requirements.

For information, visit copayassistancenow.com or call 855-MY COPAY (855-692-6729) from 9 AM to 8 PM ET, Monday through Friday.

*This Copay Card is valid ONLY for patients with private insurance. It is not valid for patients whose prescriptions drugs are paid, in whole or in part, by Medicaid, Medicare, a Medicare Part D or Medicare Advantage plan, TRICARE, CHAMPUS, Puerto Rico Government Health Insurance Plan, or any other state or federal healthcare program.

Please see pages 5, 9, 11-13, and enclosed full Product Information for Important Safety Information.
Genentech BioOncology® Co-pay Assistance Program terms and conditions

In order to qualify for the benefits of the Genentech BioOncology Co-pay Assistance Program, the patient may be required to pay certain out-of-pocket expenses for each treatment. Patients must also be taking the medication for a Food and Drug Administration (FDA)-approved indication. Patients using Medicare, Medicaid, Medcap, Veteran’s Affairs (VA), Department of Defense (DoD), TriCare or any other government-funded program to pay for their medications are not eligible. Patients who start utilizing their government coverage during their enrollment period will no longer be eligible for the program. Once enrolled, this Copay Card Program will not honor claims with date of service or medication dispensing that precede program enrollment by more than 120 days. Participating patients, pharmacies, physician offices, and hospitals are responsible for reporting the receipt of all Copay Card benefits or reimbursement received to any insurer, health plan, or other third party who pays for or reimburses any part of the prescription filled using the Copay Card Program. This card is not health insurance or a benefit plan. The patient or their guardian must be 18 years or older to receive Copay Card benefits. This Copay Card Program is void if the card is reproduced and where prohibited by law. It is only valid for Genentech products and only valid in the U.S. and U.S. Territories. This program is not valid where prohibited by law, and shall follow state restrictions in relation to AB-rated generic equivalents where applicable (e.g. MA, CA). Program duration is contingent upon patient’s ability to meet and maintain all eligibility requirements set forth by the program. Genentech, Inc., reserves the right to rescind, revoke, or amend the program without notice at any time. Patient, guardian, pharmacist, prescriber, and any other person using the Copay Card agree not to seek reimbursement for all or any part of the benefit received by the recipient through this Copay Card Program. Additional terms and conditions apply. Please visit http://www.copayassistancecenter.com/ for the full list of terms and conditions.

Additional financial resources

Genentech and Astellas are not affiliated with and do not endorse any of the listed organizations. The information provided by Genentech and Astellas is for informational purposes only and is not meant to replace the advice of a healthcare provider (HCP).

**CancerCare**
(800) 813-HOPE
(800-813-4673)
[www.cancercare.org](http://www.cancercare.org)
Provides free counseling, education, information, referral, and direct financial assistance to people with cancer.

**Patient Advocate Foundation**
(800) 532-5274
[www.patientadvocate.org](http://www.patientadvocate.org)
National organization that serves as an active partner to help patients and their insurance companies, employers, and/or creditors solve problems related to patients’ diagnoses.

The Tarceva Patient Support Program

The Tarceva Patient Support Program is a free source of information and resources that can help you throughout treatment, as prescribed by your HCP.

When you sign up, you will receive:

- **E-mails** at key times to help you stay on track with your treatment, as prescribed by your HCP.
- **Brochures** with helpful tips and advice on how to manage your treatment.

Our **free support program** can help answer questions such as:

- What is Tarceva used to treat?
- How do I take Tarceva?
- What are the benefits and risks of Tarceva?
- What can I expect while on treatment with Tarceva?
- Can I get help paying for my treatment with Tarceva?

The Genentech Patient Resource Center is available by calling (877) TARCEVA 9 AM-8 PM ET Monday–Friday. Our patient resource center is dedicated to getting patients and caregivers to the right resources.

Information provided through the Tarceva Patient Support Program does not take the place of talking to your HCP about your medical condition or treatment.


Please see pages 5, 9, 11-13, and enclosed full Product Information for Important Safety Information.
On the next few pages you will find the names of some organizations that offer information and support for people living with cancer and/or their caregivers.

Genentech and Astellas are not affiliated with and do not endorse any of the listed organizations. The information provided by Genentech and Astellas is for informational purposes only and is not meant to replace the advice of an HCP.

### General cancer resources

<table>
<thead>
<tr>
<th>Organization</th>
<th>Phone Number</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Cancer Society (ACS)</td>
<td>(800) ACS-2345</td>
<td><a href="http://www.cancer.org">www.cancer.org</a></td>
</tr>
<tr>
<td>CancerCare</td>
<td>(800) 813-HOPE</td>
<td><a href="http://www.cancercare.org">www.cancercare.org</a></td>
</tr>
<tr>
<td>Cancer Support Community</td>
<td>(888) 793-9355</td>
<td><a href="http://www.cancersupportcommunity.org">www.cancersupportcommunity.org</a></td>
</tr>
<tr>
<td>National Cancer Institute (NCI)</td>
<td>(800) 4-CANCER</td>
<td><a href="http://www.cancer.gov">www.cancer.gov</a></td>
</tr>
<tr>
<td>National Coalition for Cancer Survivorship (NCCS)</td>
<td>(877) NCCS-YES</td>
<td><a href="http://www.canceradvocacy.org">www.canceradvocacy.org</a></td>
</tr>
</tbody>
</table>

### Resources to help quit smoking

<table>
<thead>
<tr>
<th>Program</th>
<th>Phone Number</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Quitline</td>
<td>(877) 44U-QUIT</td>
<td><a href="http://www.smokefree.gov">www.smokefree.gov</a></td>
</tr>
<tr>
<td>QuitNet</td>
<td>(877-448-7848)</td>
<td><a href="http://www.quitnet.com">www.quitnet.com</a></td>
</tr>
</tbody>
</table>

### Lung cancer resources

Genentech and Astellas are not affiliated with and do not endorse any of the listed organizations. The information provided by Genentech and Astellas is for informational purposes only and is not meant to replace the advice of an HCP.

<table>
<thead>
<tr>
<th>Organization</th>
<th>Phone Number</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonnie J. Addario Lung Cancer Foundation (BJALCF)</td>
<td>(650) 598-2857</td>
<td><a href="http://www.lungcancerfoundation.org">www.lungcancerfoundation.org</a></td>
</tr>
<tr>
<td>Caring Ambassadors Lung Cancer Program (CAP Lung Cancer)</td>
<td>(503) 632-9032</td>
<td><a href="http://www.lungcancerfoundation.org">www.lungcancerfoundation.org</a></td>
</tr>
<tr>
<td>Lung Cancer Alliance (LCA)</td>
<td>(800) 298-2436</td>
<td><a href="http://www.lungcanceralliance.org">www.lungcanceralliance.org</a></td>
</tr>
<tr>
<td>LUNGevity Foundation</td>
<td>844-360-5864</td>
<td><a href="http://www.lungevity.org">www.lungevity.org</a></td>
</tr>
<tr>
<td>Lung Cancer Research Foundation</td>
<td>(212) 588-1580</td>
<td><a href="http://www.lungcancerresearchfoundation.org">www.lungcancerresearchfoundation.org</a></td>
</tr>
</tbody>
</table>

### One-on-one telephone support

The Genentech Patient Resource Center is available by calling (877) TARCEVA 9 AM–8 PM ET Monday–Friday. Our patient resource center is dedicated to getting patients and caregivers to the right resources.

<table>
<thead>
<tr>
<th>Phone Number</th>
<th>Available for information and support</th>
</tr>
</thead>
<tbody>
<tr>
<td>(877) TARCEVA (877-827-2382)</td>
<td></td>
</tr>
</tbody>
</table>

To learn more about Tarceva, call (877) TARCEVA or visit [www.tarceva.com](http://www.tarceva.com).

Please see pages 5, 9, 11-13, and enclosed full Product Information for Important Safety Information.
Who is Tarceva (erlotinib) for?

- Tarceva is prescribed for patients with non-small cell lung cancer (NSCLC) whose cancer has spread to other parts of the body and that has certain types of epidermal growth factor receptor (EGFR) mutations. Your healthcare provider will perform a test to make sure that Tarceva is right for you.
- It is not known if Tarceva is safe and effective in EGFR mutations other than those included in the FDA-approved prescribing information.
- Tarceva is not meant to be used at the same time as certain types of chemotherapy for NSCLC.

Living with cancer can be challenging for you and for the people who care about you. For people taking Tarceva, this guide explores some of those challenges and offers information that you may find helpful.

Here are some key points for you to remember:

- DO NOT take Tarceva with food
- Take Tarceva at least 1 hour before or 2 hours after eating
- DO NOT eat grapefruit or drink grapefruit juice while on treatment with Tarceva, except under the care of your HCP
- If you smoke, you should stop smoking before treatment with Tarceva. Talk with your HCP about quitting smoking
- If you continue to smoke, your treatment with Tarceva may need to be adjusted. Talk to your healthcare provider
- Call your healthcare provider right away if you have these signs or symptoms:
  - Serious or ongoing diarrhea, nausea (feeling sick to your stomach), loss of appetite, or vomiting
  - New or worsening shortness of breath or cough
  - Eye irritation
  - New or worsening rash, blistering, or peeling of the skin
  - Any changes in smoking habits
- Learn all you can about:
  - Important information regarding Tarceva therapy
  - Available financial and educational resources

Select Important Safety Information

Serious side effects, which may include death, associated with Tarceva in NSCLC that has spread to other parts of the body include: lung problems (called interstitial lung disease [ILD]), liver and kidney problems, stomach and intestinal problems (called gastrointestinal perforation [GI]), serious skin conditions, blood, bleeding, and clotting problems, eye disorders, and bleeding events when taking warfarin with Tarceva. Taking Tarceva while pregnant can harm an unborn baby.

You may report side effects to the FDA at (800) FDA-1088 or www.fda.gov/medwatch. You may also report side effects to Genentech at (888) 835-2555.

Please see pages 5, 9, 11-13, and enclosed full Product Information for Important Safety Information.
When you sign up, you will receive:

• E-mails at key times to help you stay on track with your treatment as prescribed by your healthcare provider (HCP).

• Brochures with helpful tips and advice on how to manage your treatment.

Our free support program can help answer questions such as:

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• Can I get help paying for my treatment with Tarceva?

The Genentech Patient Resource Center is available by calling (877) TARCEVA 9 /a.sc/m.sc-8 /p.sc/m.sc ET Monday-Friday. Our patient resource center is dedicated to getting patients and caregivers to the right resources.

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®

For more information about Tarceva, call (877) TARCEVA or visit www.tarceva.com.

®

For patients who are starting Tarceva and for their caregivers

®

The safety and effectiveness of Tarceva in pediatric patients have not been established.

Learning about Tarceva

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Tarceva is a trademark of OSI Pharmaceuticals, LLC, Northbrook, IL 60062, USA, an affiliate of Astellas Pharma US, Inc.
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TAR/072215/0055(6) 12/18
TARCEVA® safely and effectively. See full prescribing information for TARCEVA.

TARCEVA (erlotinib) tablets, for oral use

Initial U.S. Approval: 2004

---------------------------RECENT MAJOR CHANGES---------------------------

Indications and Usage, Non-Small Cell Lung Cancer (NSCLC) (1.1) 10/2016
Dosage and Administration (2.1) 06/2016
Dosage and Administration, Dose Modifications (2.4) 05/2016
Warnings and Precautions, Cerebrovascular Accident (5.6) 10/2016
Warnings and Precautions, Embryo-fetal Toxicity (5.10) 10/2016

TARCEVA is a kinase inhibitor indicated for:

- The treatment of patients with metastatic non-small cell lung cancer (NSCLC) whose tumors have epidermal growth factor receptor (EGFR) exon 19 deletions or exon 21 (L858R) substitution mutations as detected by an FDA-approved test receiving first-line, maintenance, or second or greater line treatment after progression following at least one prior chemotherapy regimen. (1.1)
- First-line treatment of patients with locally advanced, unresectable or metastatic pancreatic cancer, in combination with gemcitabine. (1.2)

Limitations of Use:

- Safety and efficacy of TARCEVA have not been established in patients with NSCLC whose tumors have other EGFR mutations. (1.1)
- TARCEVA is not recommended for use in combination with platinum-based chemotherapy. (1.1)

-----------------------------CONTRAINDICATIONS-----------------------------

NSCLC: 150 mg orally, on an empty stomach, once daily. (2.2)
Pancreatic cancer: 100 mg orally, on an empty stomach, once daily. (2.3)

------------------------USE IN SPECIFIC POPULATIONS-----------------------

- Interstitial lung disease (ILD): Occurs in 1.1% of patients. Withhold TARCEVA for acute onset of new or progressive unexplained pulmonary symptoms, such as dyspnea, cough and fever. Discontinue TARCEVA if ILD is diagnosed. (5.1)
- Renal failure: Monitor renal function and electrolytes, particularly in patients at risk of dehydration. Withhold TARCEVA for severe renal toxicity. (5.2)
- Hepatotoxicity: Occurs with or without hepatic impairment, including hepatic failure and hepatorenal syndrome: Monitor periodic liver testing. Withhold or discontinue TARCEVA for severe or worsening liver tests. (5.3)
- Gastrointestinal perforations: Discontinue TARCEVA. (5.4)
- Bullous and exfoliative skin disorders: Discontinue TARCEVA. (5.5)
- Cerebrovascular accident (CVA): The risk of CVA is increased in patients with pancreatic cancer. (5.6)
- Microangiopathic hemolytic anemia (MAHA): The risk of MAHA is increased in patients with pancreatic cancer. (5.7)
- Ocular disorders: Discontinue TARCEVA for corneal perforation, ulceration or persistent severe keratitis. (5.8)
- Hemorrhage in patients taking warfarin: Regularly monitor INR in patients taking warfarin or other coumarin-derivative anticoagulants. (5.9)
- Embryo-fetal toxicity. Can cause fetal harm. Advise females of reproductive potential of the potential risk to the fetus and to use effective contraception. (5.10, 8.1, 8.3)

---------------------------DRUG INTERACTIONS---------------------------

The most common adverse reactions (≥ 20%) with TARCEVA from a pooled analysis in patients with NSCLC across all approved lines of therapy, with and without EGFR mutations, and in patients with pancreatic cancer were rash, diarrhea, anorexia, fatigue, dyspnea, cough, nausea, and vomiting. (6.1)

To report SUSPECTED ADVERSE REACTIONS, contact OSI Pharmaceuticals, LLC, at 1-800-572-1932 or FDA at 1-800-FDA-1088 or http://www.fda.gov/medwatch

---------------------DOSE AND ADMINISTRATION-----------------------

- NSCLC: 150 mg orally, on an empty stomach, once daily. (2.2)
- Pancreatic cancer: 100 mg orally, on an empty stomach, once daily. (2.3)

--------------------------DOSAGE FORMS AND STRENGTHS-----------------------

Tablets: 25 mg, 100 mg, and 150 mg (3)

------------------------CONTRAINDICATIONS------------------------

None. (4)

-------------------------WARNINGS AND PRECAUTIONS-------------------------

- Intestinal lung disease (ILD): Occurs in 1.1% of patients. Withhold TARCEVA for acute onset of new or progressive unexplained pulmonary symptoms, such as dyspnea, cough and fever. Discontinue TARCEVA if ILD is diagnosed. (5.1)
- Renal failure: Monitor renal function and electrolytes, particularly in

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1.1 Non-Small Cell Lung Cancer (NSCLC)
1.2 Pancreatic Cancer

2 DOSAGE AND ADMINISTRATION
2.1 Selection of Patients with Metastatic NSCLC
2.2 Recommended Dose – NSCLC
2.3 Recommended Dose – Pancreatic Cancer
2.4 Dose Modifications

3 DOSAGE FORMS AND STRENGTHS

4 CONTRAINDICATIONS

5 WARNINGS AND PRECAUTIONS
5.1 Interstitial Lung Disease (ILD)
5.2 Renal Failure
5.3 Hepatotoxicity with or without Hepatic Impairment
5.4 Gastrointestinal Perforation
5.5 Bullous and Exfoliative Skin Disorders
5.6 Cerebrovascular Accident
5.7 Microangiopathic Hemolytic Anemia with Thrombocytopenia
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10 OVERDOSAGE

11 DESCRIPTION

12 CLINICAL PHARMACOLOGY
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13 NONCLINICAL TOXICOLOGY
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14 CLINICAL STUDIES
14.1 Non-Small Cell Lung Cancer (NSCLC) – First-Line Treatment of Patients with EGFR Mutations
14.2 NSCLC – Lack of Efficacy of TARCEVA in Maintenance Treatment of Patients without EGFR Mutations
14.3 NSCLC – Maintenance Treatment or Second/Third Line Treatment
14.4 NSCLC – Lack of Efficacy of TARCEVA Administered Concurrently with Chemotherapy
14.5 Pancreatic Cancer – TARCEVA Administered Concurrently with Gemcitabine

16 HOW SUPPLIED/STORAGE AND HANDLING

17 PATIENT COUNSELING INFORMATION

*Sections or subsections omitted from the full prescribing information are not listed.
FULL PRESCRIBING INFORMATION

1 INDICATIONS AND USAGE

1.1 Non-Small Cell Lung Cancer (NSCLC)

TARCEVA® is indicated for:

- The treatment of patients with metastatic non-small cell lung cancer (NSCLC) whose tumors have epidermal growth factor receptor (EGFR) exon 19 deletions or exon 21 (L858R) substitution mutations as detected by an FDA-approved test receiving first-line, maintenance, or second or greater line treatment after progression following at least one prior chemotherapy regimen [see Clinical Studies (14.1, 14.3)].

Limitations of use:

- Safety and efficacy of TARCEVA have not been established in patients with NSCLC whose tumors have other EGFR mutations [see Clinical Studies (14.1, 14.2)].
- TARCEVA is not recommended for use in combination with platinum-based chemotherapy [see Clinical Studies (14.4)].

1.2 Pancreatic Cancer

TARCEVA in combination with gemcitabine is indicated for the first-line treatment of patients with locally advanced, unresectable or metastatic pancreatic cancer [see Clinical Studies (14.5)].

2 DOSAGE AND ADMINISTRATION

2.1 Selection of Patients with Metastatic NSCLC

Select patients for the treatment of metastatic NSCLC with TARCEVA based on the presence of EGFR exon 19 deletions or exon 21 (L858R) substitution mutations in tumor or plasma specimens [see Clinical Studies (14.1, 14.2)]. If these mutations are not detected in a plasma specimen, test tumor tissue if available. Information on FDA-approved tests for the detection of EGFR mutations in NSCLC is available at: http://www.fda.gov/CompanionDiagnostics.

2.2 Recommended Dose – NSCLC

The recommended daily dose of TARCEVA for NSCLC is 150 mg taken on an empty stomach, i.e., at least one hour before or two hours after the ingestion of food. Treatment should continue until disease progression or unacceptable toxicity occurs.

2.3 Recommended Dose – Pancreatic Cancer

The recommended daily dose of TARCEVA for pancreatic cancer is 100 mg taken once daily in combination with gemcitabine. Take TARCEVA on an empty stomach, i.e., at least one hour before or two hours after the ingestion of food. Treatment should continue until disease progression or unacceptable toxicity occurs [see Clinical Studies (14.5)].
### Adverse Reactions

<table>
<thead>
<tr>
<th>Category</th>
<th>Condition</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulmonary†</td>
<td>Interstitial Lung Disease (ILD)</td>
<td>Discontinue TARCEVA</td>
</tr>
<tr>
<td></td>
<td>During diagnostic evaluation for possible ILD</td>
<td>Withhold TARCEVA*</td>
</tr>
<tr>
<td>Hepatic†</td>
<td>Severe hepatic toxicity that does not improve significantly or resolve within three weeks</td>
<td>Discontinue TARCEVA</td>
</tr>
<tr>
<td></td>
<td>In patients with pre-existing hepatic impairment or biliary obstruction for doubling of bilirubin or tripling of transaminases values over baseline</td>
<td>Withhold TARCEVA* and consider discontinuation</td>
</tr>
<tr>
<td></td>
<td>In patients without pre-existing hepatic impairment for total bilirubin levels greater than 3 times the upper limit of normal or transaminases greater than 5 times the upper limit of normal</td>
<td>Withhold TARCEVA* and consider discontinuation</td>
</tr>
<tr>
<td>Renal†</td>
<td>For severe (CTCAE grade 3 to 4) renal toxicity</td>
<td>Withhold TARCEVA* and consider discontinuation</td>
</tr>
<tr>
<td>Gastrointestinal†</td>
<td>Gastrointestinal perforation</td>
<td>Discontinue TARCEVA</td>
</tr>
<tr>
<td></td>
<td>For persistent severe diarrhea not responsive to medical management (e.g., loperamide)</td>
<td>Withhold TARCEVA*</td>
</tr>
<tr>
<td>Skin†</td>
<td>Severe bullous, blistering or exfoliating skin conditions</td>
<td>Discontinue TARCEVA</td>
</tr>
<tr>
<td></td>
<td>For severe rash not responsive to medical management</td>
<td>Withhold TARCEVA*</td>
</tr>
<tr>
<td>Ocular†</td>
<td>Corneal perforation or severe ulceration</td>
<td>Discontinue TARCEVA</td>
</tr>
<tr>
<td></td>
<td>For keratitis of (NCI-CTC version 4.0) grade 3-4 or for grade 2 lasting more than 2 weeks</td>
<td>Withhold TARCEVA*</td>
</tr>
<tr>
<td></td>
<td>For acute/worsening ocular disorders such as eye pain</td>
<td>Withhold TARCEVA* and consider discontinuation</td>
</tr>
</tbody>
</table>

### Drug Interactions

<table>
<thead>
<tr>
<th>Category</th>
<th>Interaction</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>CYP3A4 inhibitors‡</td>
<td>If severe reactions occur with concomitant use of strong CYP3A4 inhibitors [such as atazanavir, clarithromycin, indinavir, itraconazole, ketoconazole, nefazodone, nelfinavir, ritonavir, saquinavir, telithromycin, troleandomycin (TAO), voriconazole, or grapefruit or grapefruit juice] or when using concomitantly with an inhibitor of both CYP3A4 and CYP1A2 (e.g., ciprofloxacin)</td>
<td>Reduce TARCEVA by 50 mg decrements; avoid concomitant use if possible</td>
</tr>
<tr>
<td>CYP3A4 inducers‡</td>
<td>Concomitant use with CYP3A4 inducers, such as rifampin, rifabutin, rifapentine, phenytoin, carbamazepine, phenobarbital, or St. John’s Wort</td>
<td>Increase TARCEVA by 50 mg increments at 2-week intervals to a maximum of 450 mg as tolerated. Avoid concomitant use if possible</td>
</tr>
<tr>
<td>Concurrent Cigarette Smoking‡</td>
<td>Concurrent cigarette smoking</td>
<td>Increase TARCEVA by 50 mg increments at 2-week intervals to a maximum of 300 mg. Immediately reduce the dose of TARCEVA to the recommended dose (150 mg or 100 mg daily) upon cessation of smoking</td>
</tr>
<tr>
<td>Proton Pump inhibitors</td>
<td>Separation of doses may not eliminate the interaction since proton pump inhibitors affect the pH of the upper GI tract for an extended period</td>
<td>Avoid concomitant use if possible</td>
</tr>
</tbody>
</table>
H2-receptor antagonists

If treatment with an H2-receptor antagonist such as ranitidine is required, separate dosing.

TARCEVA must be taken 10 hours after the H2-receptor antagonist dosing and at least 2 hours before the next dose of the H2-receptor antagonist.

Antacids

The effect of antacids on erlotinib pharmacokinetics has not been evaluated.

The antacid dose and the TARCEVA dose should be separated by several hours, if an antacid is necessary.

† For additional information see Warnings and Precautions (5).
* Reduce TARCEVA by 50 mg decrements when restarting therapy following withholding treatment for a dose-limiting toxicity that has resolved to baseline or grade ≤ 1.
‡ For additional information see Drug Interactions (7).
§ For additional information see Clinical Pharmacology (12.3).

3 DOSAGE FORMS AND STRENGTHS

25 mg tablets: round, biconvex face and straight sides, white film-coated, printed in orange with “T” and “25” on one side and plain on other side.

100 mg tablets: round, biconvex face and straight sides, white film-coated, printed in gray with “T” and “100” on one side and plain on other side.

150 mg tablets: round, biconvex face and straight sides, white film-coated, printed in maroon with “T” and “150” on one side and plain on other side.

4 CONTRAINDICATIONS

None.

5 WARNINGS AND PRECAUTIONS

5.1 Interstitial Lung Disease (ILD)

Cases of serious ILD, including fatal cases, can occur with TARCEVA treatment. The overall incidence of ILD in approximately 32,000 TARCEVA-treated patients in uncontrolled studies and studies with concurrent chemotherapy was approximately 1.1%. In patients with ILD, the onset of symptoms was between 5 days to more than 9 months (median 39 days) after initiating TARCEVA therapy.

Withhold TARCEVA for acute onset of new or progressive unexplained pulmonary symptoms such as dyspnea, cough, and fever pending diagnostic evaluation. If ILD is confirmed, permanently discontinue TARCEVA [see Dosage and Administration (2.4)].

5.2 Renal Failure

Hepatorenal syndrome, severe acute renal failure including fatal cases, and renal insufficiency can occur with TARCEVA treatment. Renal failure may arise from exacerbation of underlying baseline hepatic impairment or severe dehydration. The pooled incidence of severe renal impairment in the 3 monotherapy lung cancer studies was 0.5% in the TARCEVA arms and 0.8% in the control arms. The incidence of renal impairment in the pancreatic cancer study was 1.4% in the TARCEVA plus gemcitabine arm and 0.4% in the control arm. Withhold TARCEVA in patients developing severe renal impairment until renal toxicity is resolved. Perform periodic monitoring of renal function and serum electrolytes during TARCEVA treatment [see Adverse Reactions (6.1) and Dosage and Administration (2.4)].

5.3 Hepatotoxicity with or without Hepatic Impairment

Hepatic failure and hepatorenal syndrome, including fatal cases, can occur with TARCEVA treatment in patients with normal hepatic function; the risk of hepatic toxicity is increased in patients with baseline hepatic impairment. In clinical studies where patients with moderate to severe hepatic impairment were excluded, the pooled incidence of hepatic failure in the 3 monotherapy lung cancer studies was 0.4% in the TARCEVA arms and 0% in the control arms. The incidence of hepatic failure in the pancreatic cancer study was 0.4% in the TARCEVA plus gemcitabine arm and 0.4% in the control arm. In a pharmacokinetic study in 15 patients with moderate hepatic impairment (Child-Pugh B) associated with significant liver tumor burden, 10 of these 15 patients died within 30 days of the last TARCEVA dose. One patient died from hepatorenal syndrome, 1 patient died from rapidly progressing liver failure and the remaining 8 patients died from progressive disease. Six out of the 10 patients who died had baseline total bilirubin > 3 x ULN.

Perform periodic liver testing (transaminases, bilirubin, and alkaline phosphatase) during treatment with TARCEVA. Increased frequency of monitoring of liver function is required for patients with pre-existing hepatic impairment or biliary obstruction. Withhold TARCEVA in patients without pre-existing hepatic impairment for total bilirubin levels greater than 3 times the upper limit of normal or transaminases greater than 5 times the upper limit of normal. Withhold TARCEVA in patients with pre-existing hepatic impairment or biliary obstruction for doubling of bilirubin or tripling of transaminases values over baseline. Discontinue TARCEVA in patients whose abnormal liver tests meeting the above criteria do not improve significantly or resolve within three weeks [see Dosage and Administration (2.4) and Clinical Pharmacology (12.3)].
5.4 Gastrointestinal Perforation
Gastrointestinal perforation, including fatal cases, can occur with TARCEVA treatment. Patients receiving concomitant anti-angiogenic agents, corticosteroids, NSAIDs, or taxane-based chemotherapy, or who have prior history of peptic ulceration or diverticulitis disease may be at increased risk of perforation [see Adverse Reactions (6.1, 6.2)]. The pooled incidence of gastrointestinal perforation in the 3 monotherapy lung cancer studies was 0.2% in the TARCEVA arms and 0.1% in the control arms. The incidence of gastrointestinal perforation in the pancreatic cancer study was 0.4% in the TARCEVA plus gemcitabine arm and 0% in the control arm. Permanently discontinue TARCEVA in patients who develop gastrointestinal perforation [see Dosage and Administration (2.4)].

5.5 Bullous and Exfoliative Skin Disorders
Bullous, blistering and exfoliative skin conditions, including cases suggestive of Stevens-Johnson syndrome/toxic epidermal necrolysis, which in some cases were fatal, can occur with TARCEVA treatment [see Adverse Reactions (6.1, 6.2)]. The pooled incidence of bullous and exfoliative skin disorders in the 3 monotherapy lung cancer studies was 1.2% in the TARCEVA arms and 0% in the control arms. The incidence of bullous and exfoliative skin disorders in the pancreatic cancer study was 0.4% in the TARCEVA plus gemcitabine arm and 0% in the control arm. Discontinue TARCEVA treatment if the patient develops severe bullous, blistering or exfoliating conditions [see Dosage and Administration (2.4)].

5.6 Cerebrovascular Accident
In the pancreatic carcinoma trial, seven patients in the TARCEVA/gemcitabine group developed cerebrovascular accidents (incidence: 2.5%). One of these was hemorrhagic and was the only fatal event. In comparison, in the placebo/gemcitabine group there were no cerebrovascular accidents. The pooled incidence of cerebrovascular accident in the 3 monotherapy lung cancer studies was 0.6% in the TARCEVA arms and not higher than that observed in the control arms.

5.7 Microangiopathic Hemolytic Anemia with Thrombocytopenia
The pooled incidence of microangiopathic hemolytic anemia with thrombocytopenia in the 3 monotherapy lung cancer studies was 0% in the TARCEVA arms and 0.1% in the control arms. The incidence of microangiopathic hemolytic anemia with thrombocytopenia in the pancreatic cancer study was 1.4% in the TARCEVA plus gemcitabine arm and 0% in the control arm.

5.8 Ocular Disorders
Decreased tear production, abnormal eyelash growth, keratoconjunctivitis sicca or keratitis can occur with TARCEVA treatment and can lead to corneal perforation or ulceration [see Adverse Reactions (6.1) and (6.2)]. The pooled incidence of ocular disorders in the 3 monotherapy lung cancer studies was 17.8% in the TARCEVA arms and 4% in the control arms. The incidence of ocular disorders in the pancreatic cancer study was 12.8% in the TARCEVA plus gemcitabine arm and 11.4% in the control arm. Interrupt or discontinue TARCEVA therapy if patients present with acute or worsening ocular disorders such as eye pain [see Dosage and Administration (2.4)].

5.9 Hemorrhage in Patients Taking Warfarin
Severe and fatal hemorrhage associated with International Normalized Ratio (INR) elevations can occur when TARCEVA and warfarin are administered concurrently. Regularly monitor prothrombin time and INR during TARCEVA treatment in patients taking warfarin or other coumarin-derivative anticoagulants [see Adverse Reactions (6.1) and Drug Interactions (7)].

5.10 Embryo-fetal Toxicity
Based on animal data and its mechanism of action, TARCEVA can cause fetal harm when administered to a pregnant woman. When given during organogenesis, erlotinib administration resulted in embryo-fetal lethality and abortion in rabbits at exposures approximately 3 times the exposure at the recommended human daily dose of 150 mg. Advise pregnant women of the potential risk to a fetus.

Advise females of reproductive potential to use effective contraception during therapy and for one month after the last dose of TARCEVA [see Use in Specific Populations (8.1) and (8.3), Clinical Pharmacology (12.1)].

6 ADVERSE REACTIONS
The following serious adverse reactions, which may include fatalities, are discussed in greater detail in other sections of the labeling:
- Interstitial Lung Disease (ILD) [see Warnings and Precautions (5.1)]
- Renal Failure [see Warnings and Precautions (5.2)]
- Hepatotoxicity with or without Hepatic Impairment [see Warnings and Precautions (5.3)]
- Gastrointestinal Perforation [see Warnings and Precautions (5.4)]
- Bullous and Exfoliative Skin Disorders [see Warnings and Precautions (5.5)]
- Cerebrovascular Accident [see Warnings and Precautions (5.6)]
- Microangiopathic Hemolytic Anemia with Thrombocytopenia [see Warnings and Precautions (5.7)]
- Ocular Disorders [see Warnings and Precautions (5.8)]
- Hemorrhage in Patients Taking Warfarin [see Warnings and Precautions (5.9)]
6.1 Clinical Trial Experience

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice.

Safety evaluation of TARCEVA is based on more than 1200 cancer patients who received TARCEVA as monotherapy, more than 300 patients who received TARCEVA 100 or 150 mg plus gemcitabine, and 1228 patients who received TARCEVA concurrently with other chemotherapies. The most common adverse reactions with TARCEVA are rash and diarrhea usually with onset during the first month of treatment. The incidences of rash and diarrhea from clinical studies of TARCEVA for the treatment of NSCLC and pancreatic cancer were 70% for rash and 42% for diarrhea.

Non-Small Cell Lung Cancer

First-Line Treatment of Patients with EGFR Mutations

The most frequent (≥30%) adverse reactions in TARCEVA-treated patients were diarrhea, asthenia, rash, cough, dyspnea, and decreased appetite. In TARCEVA-treated patients the median time to onset of rash was 15 days and the median time to onset of diarrhea was 32 days.

The most frequent Grade 3-4 adverse reactions in TARCEVA-treated patients were rash and diarrhea.

Dose interruptions or reductions due to adverse reactions occurred in 37% of TARCEVA-treated patients, and 14.3% of TARCEVA-treated patients discontinued therapy due to adverse reactions. In TARCEVA-treated patients, the most frequently reported adverse reactions leading to dose modification were rash (13%), diarrhea (10%), and asthenia (3.6%).

Common adverse reactions in Study 1, occurring in at least 10% of patients who received TARCEVA or chemotherapy and an increase in ≥5% in the TARCEVA-treated group, are graded by National Cancer Institute Common Toxicity Criteria for Adverse Events version 3.0 (NCI-CTCAE v3.0) Grade in Table 1. The median duration of TARCEVA treatment was 9.6 months in Study 1.

Table 1: Adverse Reactions with an Incidence Rate ≥10% and an Increase of ≥5% in the TARCEVA-Treated Group (Study 1)

<table>
<thead>
<tr>
<th>Adverse Reaction</th>
<th>TARCEVA N = 84</th>
<th>Chemotherapy† N = 83</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Grades</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rash</td>
<td>85%</td>
<td>14%</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>62%</td>
<td>5%</td>
</tr>
<tr>
<td>Cough</td>
<td>48%</td>
<td>1%</td>
</tr>
<tr>
<td>Dyspnea</td>
<td>45%</td>
<td>8%</td>
</tr>
<tr>
<td>Dry skin</td>
<td>21%</td>
<td>1%</td>
</tr>
<tr>
<td>Back pain</td>
<td>19%</td>
<td>2%</td>
</tr>
<tr>
<td>Chest pain</td>
<td>18%</td>
<td>1%</td>
</tr>
<tr>
<td>Conjunctivitis</td>
<td>18%</td>
<td>0%</td>
</tr>
<tr>
<td>Mucosal inflammation</td>
<td>18%</td>
<td>1%</td>
</tr>
<tr>
<td>Pruritus</td>
<td>16%</td>
<td>0%</td>
</tr>
<tr>
<td>Paronychia</td>
<td>14%</td>
<td>0%</td>
</tr>
<tr>
<td>Arthralgia</td>
<td>13%</td>
<td>1%</td>
</tr>
<tr>
<td>Musculoskeletal pain</td>
<td>11%</td>
<td>1%</td>
</tr>
</tbody>
</table>

† Platinum-based chemotherapy (cisplatin or carboplatin with gemcitabine or docetaxel).
‡ Rash as a composite term includes rash, acne, folliculitis, erythema, acneiform dermatitis, dermatitis, palmar-plantar erythrodysesthesia syndrome, exfoliative rash, erythematous rash, rash pruritic, skin toxicity, eczema, follicular rash, skin ulcer.

Hepatic Toxicity: One TARCEVA-treated patient experienced fatal hepatic failure and four additional patients experienced grade 3-4 liver test abnormalities in Study 1 [see Warnings and Precautions (5.3)].

Maintenance Treatment

Adverse reactions, regardless of causality, that occurred in at least 3% of patients treated with single-agent TARCEVA at 150 mg and at least 3% more often than in the placebo group in the randomized maintenance trial (Study 3) are summarized by NCI-CTCAE v3.0 Grade in Table 2.
The most common adverse reactions in patients receiving single-agent TARCEVA 150 mg were rash and diarrhea. Grade 3-4 rash and diarrhea occurred in 9% and 2%, respectively, in TARCEVA-treated patients. Rash and diarrhea resulted in study discontinuation in 1% and 0.5% of TARCEVA-treated patients, respectively. Dose reduction or interruption for rash and diarrhea was needed in 5% and 3% of patients, respectively. In TARCEVA-treated patients the median time to onset of rash was 10 days, and the median time to onset of diarrhea was 15 days.

Table 2: NSCLC Maintenance Study: Adverse Reactions Occurring with an Incidence Rate ≥ 10% and an Increase of ≥ 5% in the Single-Agent TARCEVA Group compared to the Placebo Group (Study 3)

<table>
<thead>
<tr>
<th>Adverse Reaction</th>
<th>TARCEVA N = 433</th>
<th>PLACEBO N = 445</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Any Grade</td>
<td>Grade 3</td>
</tr>
<tr>
<td>Rash†</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>60</td>
<td>9</td>
</tr>
</tbody>
</table>

† Rash as a composite term includes: rash, acne, acneiform dermatitis, skin fissures, erythema, papular rash, rash generalized, pruritic rash, skin exfoliation, urticaria, dermatitis, eczema, exfoliative rash, exfoliative dermatitis, furuncle, macular rash, pustular rash, skin hyperpigmentation, skin reaction, skin ulcer.

Liver test abnormalities including ALT elevations were observed at Grade 2 or greater severity in 3% of TARCEVA-treated patients and 1% of placebo-treated patients. Grade 2 and above bilirubin elevations were observed in 5% of TARCEVA-treated patients and in < 1% in the placebo group [see Dosage and Administration (2.4) and Warnings and Precautions (5.3)].

Second/Third Line Treatment

Adverse reactions, regardless of causality, that occurred in at least 10% of patients treated with single-agent TARCEVA at 150 mg and at least 5% more often than in the placebo group in the randomized trial of patients with NSCLC are summarized by NCI-CTC v2.0 Grade in Table 3.

The most common adverse reactions in this patient population were rash and diarrhea. Grade 3-4 rash and diarrhea occurred in 9% and 6%, respectively, in TARCEVA-treated patients. Rash and diarrhea each resulted in study discontinuation in 1% of TARCEVA-treated patients. Six percent and 1% of patients needed dose reduction for rash and diarrhea, respectively. The median time to onset of rash was 8 days, and the median time to onset of diarrhea was 12 days.

Table 3: NSCLC 2nd/3rd Line Study: Adverse Reactions Occurring with an Incidence Rate ≥ 10% and an Increase of ≥ 5% in the Single-Agent TARCEVA Group Compared to the Placebo Group (Study 4)

<table>
<thead>
<tr>
<th>Adverse Reaction</th>
<th>TARCEVA 150 mg N=485</th>
<th>Placebo N=242</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Any Grade</td>
<td>Grade 3</td>
</tr>
<tr>
<td>Rash†</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>75</td>
<td>8</td>
</tr>
<tr>
<td>Anorexia</td>
<td>54</td>
<td>6</td>
</tr>
<tr>
<td>Fatigue</td>
<td>52</td>
<td>14</td>
</tr>
<tr>
<td>Dyspnea</td>
<td>41</td>
<td>17</td>
</tr>
<tr>
<td>Nausea</td>
<td>33</td>
<td>3</td>
</tr>
<tr>
<td>Infection</td>
<td>24</td>
<td>4</td>
</tr>
<tr>
<td>Stomatitis</td>
<td>17</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Pruritus</td>
<td>13</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Dry skin</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>Conjunctivitis</td>
<td>12</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Keratoconjunctivitis sicca</td>
<td>12</td>
<td>0</td>
</tr>
</tbody>
</table>

† Rash as a composite term includes: rash, palmar-plantar erythrodysesthesia syndrome, acne, skin disorder, pigmentation disorder, erythema, skin ulcer, exfoliative dermatitis, papular rash, skin desquamation.

Liver function test abnormalities [including elevated alanine aminotransferase (ALT), aspartate aminotransferase (AST) and bilirubin] were observed in patients receiving single-agent TARCEVA 150 mg. These elevations were mainly transient or associated with liver metastases. Grade 2 (≥ 2.5 – 5.0 x upper limit of normal (ULN)) ALT elevations occurred in 4% and < 1% of TARCEVA and placebo.
treated patients, respectively. Grade 3 (> 5.0 – 20.0 x ULN) elevations were not observed in TARCEVA-treated patients. TARCEVA dosing should be interrupted or discontinued if changes in liver function are severe [see Dosage and Administration (2.4)].

Pancreatic Cancer - TARCEVA Administered Concurrently with Gemcitabine

This was a randomized, double-blind, placebo-controlled study of TARCEVA (150 mg or 100 mg daily) or placebo plus gemcitabine (1000 mg/m² by intravenous infusion) in patients with locally advanced, unresectable or metastatic pancreatic cancer (Study 5). The safety population comprised 282 patients in the erlotinib group (259 in the 100 mg cohort and 23 in the 150 mg cohort) and 280 patients in the placebo group (256 in the 100 mg cohort and 24 in the 150 mg cohort).

Adverse reactions that occurred in at least 10% of patients treated with TARCEVA 100 mg plus gemcitabine in the randomized trial of patients with pancreatic cancer (Study 5) were graded according to NCI-CTC v2.0 in Table 4.

The most common adverse reactions in pancreatic cancer patients receiving TARCEVA 100 mg plus gemcitabine were fatigue, rash, nausea, anorexia and diarrhea. In the TARCEVA plus gemcitabine arm, Grade 3-4 rash and diarrhea were each reported in 5% of patients. The median time to onset of rash and diarrhea was 10 days and 15 days, respectively. Rash and diarrhea each resulted in dose reductions in 2% of patients, and resulted in study discontinuation in up to 1% of patients receiving TARCEVA plus gemcitabine. Severe adverse reactions (≥ Grade 3 NCI-CTC) in the TARCEVA plus gemcitabine group with incidences < 5% included syncope, arrhythmias, ileus, pancreatitis, hemolytic anemia including microangiopathic hemolytic anemia with thrombocytopenia, myocardial infarction/ischemia, cerebrovascular accidents including cerebral hemorrhage, and renal insufficiency [see Warnings and Precautions (5)].

The 150 mg cohort was associated with a higher rate of certain class-specific adverse reactions including rash and required more frequent dose reduction or interruption.

<table>
<thead>
<tr>
<th>Adverse Reaction</th>
<th>TARCEVA + Gemcitabine</th>
<th>Placebo + Gemcitabine</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1000 mg/m² IV</td>
<td>1000 mg/m² IV</td>
</tr>
<tr>
<td></td>
<td>N=259</td>
<td>N=256</td>
</tr>
<tr>
<td></td>
<td>Any Grade</td>
<td>Grade 3</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Rash †</td>
<td>70</td>
<td>5</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>48</td>
<td>5</td>
</tr>
<tr>
<td>Decreased weight</td>
<td>39</td>
<td>2</td>
</tr>
<tr>
<td>Infection †</td>
<td>39</td>
<td>13</td>
</tr>
<tr>
<td>Pyrexia</td>
<td>36</td>
<td>3</td>
</tr>
<tr>
<td>Stomatitis</td>
<td>22</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Depression</td>
<td>19</td>
<td>2</td>
</tr>
<tr>
<td>Cough</td>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td>Headache</td>
<td>15</td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

| Infections as a composite term include infections with unspecified pathogens as well as bacterial (including chlamydial, rickettsial, mycobacterial and mycoplasmal), parasitic (including helminthic, ectoparasitic and protozoal), viral and fungal infectious disorders.
| Rash as a composite term includes: rash, palmar-plantar erythrodynesthesia syndrome, pigmentation disorder, acneiform dermatitis, folliculitis, photosensitivity reaction, Stevens-Johnson syndrome, urticaria, erythematous rash, skin disorder, skin ulcer.

Ten patients (4%) in the TARCEVA/gemcitabine group and three patients (1%) in the placebo/gemcitabine group developed deep venous thrombosis. The overall incidence of grade 3 or 4 thrombotic events, including deep venous thrombosis was 11% for TARCEVA plus gemcitabine and 9% for placebo plus gemcitabine.

The incidences of liver test abnormalities (≥ Grade 2) in Study 5 are provided in Table 5 [see Dosage and Administration (2.4) and Warnings and Precautions (5.3)].
Table 5: Liver Test Abnormalities in Pancreatic Cancer Patients: 100 mg Cohort (Study 5)

<table>
<thead>
<tr>
<th></th>
<th>TARCEVA + Gemcitabine</th>
<th>Placebo + Gemcitabine</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1000 mg/m² IV N=259</td>
<td>1000 mg/m² IV N=256</td>
</tr>
<tr>
<td>Grade 2</td>
<td>Grade 3</td>
<td>Grade 4</td>
</tr>
<tr>
<td>Bilirubin</td>
<td>17%</td>
<td>10%</td>
</tr>
<tr>
<td>ALT</td>
<td>31%</td>
<td>13%</td>
</tr>
<tr>
<td>AST</td>
<td>24%</td>
<td>10%</td>
</tr>
</tbody>
</table>

NSCLC and Pancreatic Indications: Selected Low Frequency Adverse Reactions

Gastrointestinal Disorders
Cases of gastrointestinal bleeding (including fatalities) have been reported, some associated with concomitant warfarin or NSAID administration [see Warnings and Precautions (5.9) and Drug Interactions (7)]. These adverse reactions were reported as peptic ulcer bleeding (gastritis, gastroduodenal ulcers), hematemesis, hematochezia, melena and hemorrhage from possible colitis.

6.2 Post-Marketing Experience
The following adverse reactions have been identified during post approval use of TARCEVA. Because these reactions are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure.

Musculoskeletal and Connective Tissue Disorders: myopathy, including rhabdomyolysis, in combination with statin therapy

Eye Disorders: ocular inflammation including uveitis

7 DRUG INTERACTIONS

CYP3A4 Inhibitors
Co-administration of TARCEVA with a strong CYP3A4 inhibitor or a combined CYP3A4 and CYP1A2 inhibitor increased erlotinib exposure. Erlotinib is metabolized primarily by CYP3A4 and to a lesser extent by CYP1A2. Increased erlotinib exposure may increase the risk of exposure-related toxicity [see Clinical Pharmacology (12.3)].

Avoid co-administering TARCEVA with strong CYP3A4 inhibitors (e.g., boceprevir, clarithromycin, conivaptan, indinavir, itraconazole, ketoconazole, lopinavir/ritonavir, nefazodone, nelfinavir, posaconazole, ritonavir, saquinavir, telithromycin, voriconazole, grapefruit or grapefruit juice) or a combined CYP3A4 and CYP1A2 inhibitor (e.g., ciprofloxacin). Reduce the TARCEVA dosage when co-administering with a strong CYP3A4 inhibitor or a combined CYP3A4 and CYP1A2 inhibitor if co-administration is unavoidable [see Dosage and Administration (2.4)].

CYP1A2 Inducers and Cigarette Smoking
Cigarette smoking decreased erlotinib exposure. Avoid smoking tobacco (CYP1A2 inducer) and avoid concomitant use of TARCEVA with moderate CYP1A2 inducers (e.g., carbamazepine, phenytoin, rifampin, rifabutin, rifapentine, phenobarbital and St. John's wort) is unavoidable [see Dosage and Administration (2.4)].

CYP3A4 Inducers
Pre-treatment with a CYP3A4 inducer prior to TARCEVA decreased erlotinib exposure [see Clinical Pharmacology (12.3)]. Increase the TARCEVA dosage if co-administration with CYP3A4 inducers (e.g., carbamazepine, phenytoin, rifampin, rifabutin, rifapentine, phenobarbital and St. John's wort) is unavoidable [see Dosage and Administration (2.4)].

Drugs that Increase Gastric pH
Co-administration of TARCEVA with proton pump inhibitors (e.g., omeprazole) and H-2 receptor antagonists (e.g., ranitidine) decreased erlotinib exposure [see Clinical Pharmacology (12.3)]. For proton pump inhibitors, avoid concomitant use if possible. For H-2 receptor antagonists and antacids, modify the dosing schedule [see Dosage and Administration (2.4)]. Increasing the dose of TARCEVA when co-administered with gastric PH elevating agents is not likely to compensate for the loss of exposure.

Anticoagulants
Interaction with coumarin-derived anticoagulants, including warfarin, leading to increased International Normalized Ratio (INR) and bleeding adverse reactions, which in some cases were fatal, have been reported in patients receiving TARCEVA. Regularly monitor prothrombin time or INR in patients taking coumarin-derived anticoagulants. Dose modifications of TARCEVA are not recommended [see Warnings and Precautions (5.9) and Adverse Reactions (6.1)].
8 USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

Risk Summary
Based on animal data and its mechanism of action, TARCEVA can cause fetal harm when administered to a pregnant woman. Limited available data on use of TARCEVA in pregnant women are not sufficient to inform a risk of major birth defects or miscarriage. When given during organogenesis, erlotinib administration resulted in embryo-fetal lethality and abortion in rabbits at exposures approximately 3 times the exposure at the recommended human daily dose of 150 mg. Advise pregnant women of the potential risk to a fetus.

In the U.S. general population, the estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2-4% and 15-20%, respectively.

Data
Animal Data
Erlotinib has been shown to cause maternal toxicity resulting in embryo-fetal lethality and abortion in rabbits when given during the period of organogenesis at doses that result in plasma drug concentrations approximately 3 times those achieved at the recommended dose in humans (AUCs at 150 mg daily dose). During the same period, there was no increase in the incidence of embryo-fetal lethality or abortion in rabbits or rats at doses resulting in exposures approximately equal to those in humans at the recommended daily dose. In an independent fertility study female rats treated with 30 mg/m²/day or 60 mg/m²/day (0.3 or 0.7 times the recommended daily dose, on a mg/m² basis) of erlotinib had an increase in early resorptions that resulted in a decrease in the number of live fetuses.

No teratogenic effects were observed in rabbits or rats dosed with erlotinib during organogenesis at doses up to 600 mg/m²/day in the rabbit (3 times the plasma drug concentration seen in humans at 150 mg/day) and up to 60 mg/m²/day in the rat (0.7 times the recommended dose of 150 mg/day on a mg/m² basis).

8.2 Lactation

Risk Summary
There are no data on the presence of erlotinib in human milk, or the effects of erlotinib on the breastfed infant or on milk production. Because of the potential for serious adverse reactions in breastfed infants from TARCEVA, including interstitial lung disease, hepatotoxicity, bullous and exfoliative skin disorders, microangiopathic hemolytic anemia with thrombocytopenia, ocular disorders, and diarrhea. Advise a lactating woman not to breastfeed during treatment with TARCEVA and for 2 weeks after the final dose.

8.3 Females and Males of Reproductive Potential

Contraception
Females
TARCEVA can cause fetal harm when administered to a pregnant woman [see Use in Specific Populations (8.1)]. Advise females of reproductive potential to use effective contraception during treatment with TARCEVA and for one month after the last dose of TARCEVA.

8.4 Pediatric Use

The safety and effectiveness of TARCEVA in pediatric patients have not been established.

In an open-label, multicenter trial, 25 pediatric patients (median age 14 years, range 3-20 years) with recurrent or refractory ependymoma were randomized (1:1) to TARCEVA or etoposide. Thirteen patients received TARCEVA at a dose of 85 mg/m²/day orally until disease progression, death, patient request, investigator decision to discontinue study drug, or intolerable toxicity. Four patients randomized to etoposide also received TARCEVA following disease progression. The trial was terminated prematurely for lack of efficacy; there were no objective responses observed in these 17 TARCEVA-treated patients.

No new adverse events were identified in the pediatric population.

Based on the population pharmacokinetics analysis conducted in 105 pediatric patients (2 to 21 years old) with cancer, the geometric mean estimates of CL/F/BSA (apparent clearance normalized to body surface area) were comparable across the three age groups: 2-6 years (n = 29), 7-16 years (n = 59), and 17-21 years (n = 17).

8.5 Geriatric Use

Of the 1297 subjects in clinical studies of TARCEVA for the treatment of NSCLC and pancreatic cancer 40% were 65 and older while 10% were 75 and older. No overall differences in safety or efficacy were observed between subjects 65 years and older and those younger than 65.

8.6 Hepatic Impairment

Hepatic failure and hepatorenal syndrome, including fatal cases, can occur with TARCEVA treatment in patients with normal hepatic function; the risk of hepatic toxicity is increased in patients with baseline hepatic impairment [see Warnings and Precautions (5.3), Adverse Reactions (6.1, 6.2), and Dosage and Administration]. Monitor patients with hepatic impairment (total bilirubin greater than upper limit of normal (ULN) or Child-Pugh A, B and C) during therapy with TARCEVA. Treatment with TARCEVA should be used
with increased monitoring in patients with total bilirubin greater than 3 x ULN [see Warnings and Precautions (5.3), Adverse Reactions (6.1, 6.2), and Dosage and Administration (2.4)].

10 OVERDOSAGE
Withhold TARCEVA in patients with an overdose or suspected overdose and institute symptomatic treatment.

11 DESCRIPTION
TARCEVA (erlotinib), a kinase inhibitor, is a quinazolinamine with the chemical name N-(3-ethynylphenyl)-6,7-bis(2-methoxyethoxy)-4-quinazolinamine. TARCEVA contains erlotinib as the hydrochloride salt that has the following structural formula:

![Structural formula of Erlotinib hydrochloride](image)

Erlotinib hydrochloride has the molecular formula C22H23N3O4.HCl and a molecular weight of 429.90. The molecule has a pKa of 5.42 at 25°C. Erlotinib hydrochloride is very slightly soluble in water, slightly soluble in methanol and practically insoluble in acetonitrile, acetone, ethyl acetate and hexane.

Aqueous solubility of erlotinib hydrochloride is dependent on pH with increased solubility at a pH of less than 5 due to protonation of the secondary amine. Over the pH range of 1.4 to 9.6, maximal solubility of approximately 0.4 mg/mL occurs at a pH of approximately 2.

TARCEVA tablets for oral administration are available in three dosage strengths containing erlotinib hydrochloride (27.3 mg, 109.3 mg and 163.9 mg) equivalent to 25 mg, 100 mg and 150 mg erlotinib and the following inactive ingredients: lactose monohydrate, hypromellose, hydroxypropyl cellulose, magnesium stearate, microcrystalline cellulose, sodium starch glycolate, sodium lauryl sulfate and titanium dioxide. The tablets also contain trace amounts of color additives, including FD&C Yellow #6 (25 mg only) for product identification.

12 CLINICAL PHARMACOLOGY

12.1 Mechanism of Action
Epidermal growth factor receptor (EGFR) is expressed on the cell surface of both normal and cancer cells. In some tumor cells signaling through this receptor plays a role in tumor cell survival and proliferation irrespective of EGFR mutation status. Erlotinib reversibly inhibits the kinase activity of EGFR, preventing autophosphorylation of tyrosine residues associated with the receptor and thereby inhibiting further downstream signaling. Erlotinib binding affinity for EGFR exon 19 deletion or exon 21 (L858R) mutations is higher than its affinity for the wild type receptor. Erlotinib inhibition of other tyrosine kinase receptors has not been fully characterized.

12.3 Pharmacokinetics

Absorption
Erlotinib is about 60% absorbed after oral administration. Peak plasma levels occur 4 hours after dosing.

Effect of Food
Food increased the bioavailability of erlotinib to approximately 100%.

Distribution:
Erlotinib is 93% protein bound to plasma albumin and alpha-1 acid glycoprotein (AAG).

Erlotinib has an apparent volume of distribution of 232 liters.

Elimination
Erlotinib is eliminated with a median half-life of 36.2 hours in patients receiving the single-agent TARCEVA 2nd/3rd line regimen. Time to reach steady state plasma concentration would therefore be 7-8 days.

Metabolism
Erlotinib is metabolized primarily by CYP3A4 and to a lesser extent by CYP1A2, and the extrahepatic isoform CYP1A1, in vitro.
Excretion
Following a 100 mg oral dose, 91% of the dose was recovered: 83% in feces (1% of the dose as intact parent) and 8% in urine (0.3% of the dose as intact parent).

Specific Populations

Neither age, body weight, nor gender had a clinically significant effect on the systemic exposure of erlotinib in NSCLC patients receiving single-agent TARCEVA for 2nd/3rd line treatment or for maintenance treatment, and in pancreatic cancer patients who received erlotinib plus gemcitabine. The pharmacokinetics of TARCEVA in patients with compromised renal function is unknown.

Patients with Hepatic Impairment
In vitro and in vivo evidence suggest that erlotinib is cleared primarily by the liver. However, erlotinib exposure was similar in patients with moderately impaired hepatic function (Child-Pugh B) compared with patients with adequate hepatic function including patients with primary liver cancer or hepatic metastases.

Patients That Smoke Tobacco Cigarettes
In a single-dose pharmacokinetics trial in healthy volunteers, cigarette smoking (moderate CYP1A2 inducer) increased erlotinib clearance and decreased erlotinib AUC\textsubscript{0-\textinfty} by 64% (95% CI, 46-76%) in current smokers compared with former/never smokers. In a NSCLC trial, current smokers achieved erlotinib steady-state trough plasma concentrations which were approximately 2-fold less than the former smokers or patients who had never smoked. This effect was accompanied by a 24% increase in apparent erlotinib plasma clearance. In another study which was conducted in NSCLC patients who were current smokers, pharmacokinetic analyses at steady-state indicated a dose-proportional increase in erlotinib exposure when the TARCEVA dose was increased from 150 mg to 300 mg. [see Dosage and Administration (2.4), Drug Interactions (7) and Patient Counseling Information (17)].

Drug Interaction Studies

Co-administration of gemcitabine had no effect on erlotinib plasma clearance.

CYP3A4 Inhibitors
Co-administration with a strong CYP3A4 inhibitor, ketoconazole, increased erlotinib AUC by 67%. Co-administration with a combined CYP3A4 and CYP1A2 inhibitor, ciprofloxacin, increased erlotinib exposure [AUC] by 39%, and increased erlotinib maximum concentration [\text{C}\text{\textsubscript{max}}] by 17%. [see Dose Modifications (2.4), Drug Interactions (7)].

CYP3A4 Inducers
Pre-treatment with the CYP3A4 inducer rifampicin, for 7-11 days prior to TARCEVA, decreased erlotinib AUC by 58% to 80% [see Dose Modifications (2.4), Drug Interactions (7)].

CYP1A2 Inducers or Smoking Tobacco
See Specific Populations Section [see Dose Modifications (2.4), Drug Interactions (7)].

Drugs that Increase Gastric pH
Erlotinib solubility is pH dependent and decreases as pH increases. When a proton pump inhibitor (omeprazole) was co-administered with TARCEVA the erlotinib exposure [AUC] was decreased by 46% and the erlotinib maximum concentration [\text{C}\text{\textsubscript{max}}] was decreased by 61%. When TARCEVA was administered 2 hours following a 300 mg dose of an H-2 receptor antagonist (ranitidine), the erlotinib AUC was reduced by 33% and the erlotinib \text{C}\text{\textsubscript{max}} was reduced by 54%. When TARCEVA was administered with ranitidine 150 mg twice daily (at least 10 h after the previous ranitidine evening dose and 2 h before the ranitidine morning dose), the erlotinib AUC was decreased by 15% and the erlotinib \text{C}\text{\textsubscript{max}} was decreased by 17% [see Dose Modifications (2.4), Drug Interactions (7)].

13 NONCLINICAL TOXICOLOGY

13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility
Two-year carcinogenicity studies were conducted in mice and rats with erlotinib at oral doses of up to 60 mg/kg/day in mice, 5 mg/kg/day in female rats, and 10 mg/kg/day in male rats. The studies were negative for carcinogenic findings. Exposure in mice at the highest dose tested was approximately 10 times the exposure in humans at the erlotinib dose of 150 mg/day. The highest dose evaluated in male rats resulted in exposures that were twice those in humans and exposures at the highest tested dose in female rats were slightly lower than those in humans.

Erlotinib did not cause genetic damage in a series of in vitro assays (bacterial mutation, human lymphocyte chromosome aberration and mammalian cell mutation) and in the in vivo mouse bone marrow micronucleus test.

Erlotinib did not impair fertility in either male or female rats.
14 CLINICAL STUDIES

14.1 Non-Small Cell Lung Cancer (NSCLC) – First-Line Treatment of Patients with EGFR Mutations

Study 1
The safety and efficacy of TARCEVA as monotherapy for the first-line treatment of patients with metastatic NSCLC containing EGFR exon 19 deletions or exon 21 (L858R) substitution mutations was demonstrated in Study 1, a randomized, open-label, clinical trial conducted in Europe. One hundred seventy-four (174) White patients were randomized 1:1 to receive erlotinib 150 mg once daily until disease progression (n = 86) or four cycles of a standard platinum-based doublet chemotherapy (n = 88); standard chemotherapy regimens were cisplatin plus gemcitabine, cisplatin plus docetaxel, carboplatin plus gemcitabine, and carboplatin plus docetaxel. The main efficacy outcome measure was progression-free survival (PFS) as assessed by the investigator. Randomization was stratified by EGFR mutation (exon 19 deletion or exon 21 (L858R) substitution) and Eastern Cooperative Oncology Group Performance Status (ECOG PS) (0 vs. 1 vs. 2). EGFR mutation status for screening and enrollment of patients was determined by a clinical trials assay (CTA). Tumor samples from 134 patients (69 patients from the erlotinib arm and 65 patients from the chemotherapy arm) were tested retrospectively by the FDA-approved companion diagnostic, cobas® EGFR Mutation Test.

Baseline demographics of the overall study population were: female (72%), White (99%), age ≥ 65 years (51%), ECOG PS 1 (53%), with ECOG PS 0 (33%), and ECOG PS 2 (14%), current smoker (11%), past-smoker (20%), and never smoker (69%). The disease characteristics were 93% Stage IV and 7% Stage IIIb with pleural effusion as classified by the American Joint Commission on Cancer (AJCC, 6th edition), 93% adenocarcinoma, 66% exon 19 mutation deletions and 34% exon 21 (L858R) point mutation by CTA.

A statistically significant improvement in investigator-determined PFS (based on RECIST 1.0 or clinical progression) was demonstrated for patients randomized to erlotinib compared to those randomized to chemotherapy (see Table 6 and Figure 1). Similar results for PFS (based on RECIST 1.0) were observed for the subgroup evaluated by an independent-review committee (approximately 75% of patients evaluated in Study 1) and in the subgroup of 134 patients (77% of Study 1 population) with EGFR mutations confirmed by the cobas® EGFR Mutation Test.

A protocol-specified analysis of overall survival (OS) conducted at the time of the final analysis of PFS showed no statistically significant difference between the TARCEVA and chemotherapy arms. At the time of the data cut-off, 84% of patients in the chemotherapy arm had received at least one subsequent treatment, of whom 97% received an EGFR-tyrosine kinase inhibitor. In the TARCEVA arm, 66% of patients had received at least one subsequent treatment.

Table 6: Efficacy Results (Study 1)

<table>
<thead>
<tr>
<th>Efficacy Parameter</th>
<th>Erlotinib (N = 86)</th>
<th>Chemotherapy (N = 88)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Progression-Free Survival</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Progressions or Deaths</td>
<td>71 (83%)</td>
<td>63 (72%)</td>
</tr>
<tr>
<td>Median PFS in Months (95% CI)</td>
<td>10.4 (8.7, 12.9)</td>
<td>5.2 (4.6, 6.0)</td>
</tr>
<tr>
<td>Hazard Ratio (95% CI) (1)</td>
<td>0.34 (0.23, 0.49)</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>p-value (unstratified log-rank test)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Overall Survival</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Deaths (%)</td>
<td>55 (64%)</td>
<td>54 (61%)</td>
</tr>
<tr>
<td>Median OS in Months (95% CI)</td>
<td>22.9 (17.0, 26.8)</td>
<td>19.5 (17.3, 28.4)</td>
</tr>
<tr>
<td>Hazard Ratio (95% CI)³</td>
<td>0.93 (0.64, 1.35)</td>
<td></td>
</tr>
<tr>
<td><strong>Objective Response</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Objective Response Rate (95% CI)</td>
<td>65% (54.1%, 75.1%)</td>
<td>16% (9.0%, 25.3%)</td>
</tr>
</tbody>
</table>

(1) Unstratified Cox regression model.
In exploratory subgroup analyses based on EGFR mutation subtype, the hazard ratio (HR) for PFS was 0.27 (95% CI 0.17 to 0.43) in patients with exon 19 deletions and 0.52 (95% CI 0.29 to 0.95) in patients with exon 21 (L858R) substitution. The HR for OS was 0.94 (95% CI 0.57 to 1.54) in the exon 19 deletion subgroup and 0.99 (95% CI 0.56 to 1.76) in the exon 21 (L858R) substitution subgroup.

14.2 NSCLC - Lack of Efficacy of TARCEVA in Maintenance Treatment of Patients without EGFR Mutations

Lack of efficacy of TARCEVA for the maintenance treatment of patients with NSCLC without EGFR activating mutations was demonstrated in Study 2. Study 2 was a multicenter, placebo-controlled, randomized trial of 643 patients with advanced NSCLC without an EGFR exon 19 deletion or exon 21 L858R mutation who had not experienced disease progression after four cycles of platinum-based chemotherapy. Patients were randomized 1:1 to receive TARCEVA 150 mg or placebo orally once daily (322 TARCEVA, 321 placebo) until disease progression or unacceptable toxicity. Following progression on initial therapy, patients were eligible to enter an open-label phase. Baseline characteristics were as follows: median age 61 years (35% age ≥ 65 years), 75% male, 77% White, 21% Asian, 28% ECOG PS 0, 72% ECOG PS 1, 16% never smokers, 57% current smokers, 58% adenocarcinoma, 35% squamous cell carcinoma, 22% stage IIIb disease not amenable to combined modality treatment, and 78% stage IV disease. Fifty percent of patients randomized to TARCEVA entered the open-label phase and received chemotherapy, while 77% of patients randomized to placebo entered the open-label phase and received TARCEVA.

The main efficacy outcome was overall survival (OS). Median OS was 9.7 months in the TARCEVA arm and 9.5 months in the placebo arm; the hazard ratio for OS was 1.02 (95% CI 0.85, 1.22). Median PFS was 3.0 months in the TARCEVA arm and 2.8 months in the placebo arm; the hazard ratio for PFS was 0.94 (95% CI 0.80, 1.11).

14.3 NSCLC – Maintenance Treatment or Second/Third Line Treatment

Two randomized, double-blind, placebo-controlled trials, Studies 3 and 4, examined the efficacy and safety of TARCEVA administered to patients with metastatic NSCLC as maintenance therapy after initial treatment with chemotherapy (Study 3) or with disease progression following initial treatment with chemotherapy (Study 4). Determination of EGFR mutation status was not required for enrollment.

Study 3

The efficacy and safety of TARCEVA as maintenance treatment of NSCLC were demonstrated in Study 3, a randomized, double-blind, placebo-controlled trial conducted in 26 countries, in 889 patients with metastatic NSCLC whose disease did not progress during first-line platinum-based chemotherapy. Patients were randomized 1:1 to receive TARCEVA 150 mg or placebo orally once daily (438 TARCEVA, 451 placebo) until disease progression or unacceptable toxicity. The primary objective of the study was to determine if the administration of TARCEVA after standard platinum-based chemotherapy in the treatment of NSCLC resulted in improved progression-free survival (PFS) when compared with placebo, in all patients or in patients with EGFR immunohistochemistry (IHC) positive tumors.

Baseline demographics of the overall study population were as follows: male (74%), age < 65 years (66%), ECOG PS 1 (69%), ECOG PS 0 (31%), white (84%), Asian (15%), current smoker (55%), past-smoker (27%), and never smoker (17%). Disease characteristics were as follows: Stage IV (75%), Stage IIIb with effusion (25%) as classified by AJCC (6th edition) with histologic subtypes of adenocarcinoma including bronchioalveolar (45%), squamous (40%) and large cell (5%); and EGFR IHC positive (70%), negative (14%), indeterminate (4%), and missing (12%).
Table 7: Efficacy Results (Study 3): (ITT Population)\(^1\)

<table>
<thead>
<tr>
<th>Efficacy Parameter</th>
<th>TARCEVA (N = 438)</th>
<th>Placebo (N = 451)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Progression-Free Survival (PFS) based on investigator assessment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Progression or Deaths (%)</td>
<td>349 (80%)</td>
<td>400 (89%)</td>
</tr>
<tr>
<td>Median PFS in Months (95% CI)</td>
<td>2.8 (2.8, 3.1)</td>
<td>2.6 (1.9, 2.7)</td>
</tr>
<tr>
<td>Hazard Ratio (95% CI) (^2)</td>
<td>0.71 (0.62, 0.82)</td>
<td></td>
</tr>
<tr>
<td>p-value (stratified log-rank test) (^{2,3})</td>
<td>p &lt; 0.0001</td>
<td></td>
</tr>
<tr>
<td><strong>Overall Survival (OS)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Deaths</td>
<td>298 (68%)</td>
<td>350 (78%)</td>
</tr>
<tr>
<td>Median OS in Months (95% CI)</td>
<td>12.0 (10.6, 13.9)</td>
<td>11.0 (9.9, 12.1)</td>
</tr>
<tr>
<td>Hazard Ratio (95% CI) (^2)</td>
<td>0.81 (0.70, 0.95)</td>
<td></td>
</tr>
<tr>
<td>p-value (stratified log-rank test) (^3)</td>
<td>0.0088</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Patients with PD prior to randomization were excluded from PFS and TTP analysis.
\(^2\) Univariate Cox regression model.
\(^3\) Unstratified log-rank test.

Figure 2: Kaplan-Meier Curves for Overall Survival (ITT Population).

**Figure 2:** Kaplan-Meier Curves for Overall Survival of Patients by Treatment Group in Study 3

![Kaplan-Meier Curves](image)

Note: HR is from a univariate Cox regression model.

**Study 4**

The efficacy and safety of single-agent TARCEVA was assessed in Study 4, a randomized, double blind, placebo-controlled trial in 731 patients with locally advanced or metastatic NSCLC after failure of at least one chemotherapy regimen. Patients were randomized 2:1 to receive TARCEVA 150 mg or placebo (488 TARCEVA, 243 placebo) orally once daily until disease progression or unacceptable toxicity. Efficacy outcome measures included overall survival, response rate, and progression-free survival (PFS). Duration of response was also examined. The primary endpoint was survival. The study was conducted in 17 countries.
Baseline demographics of the overall study population were as follows: male (65%), White (78%), Asian (12%), Black (4%), age < 65 years (62%), ECOG PS 1 (53%), ECOG PS 0 (13%), ECOG PS 2 (25%), ECOG PS 3 (9%), current or ex-smoker (75%), never smoker (20%), and exposure to prior platinum therapy (93%). Tumor characteristics were as follows: adenocarcinoma (50%), squamous (30%), undifferentiated large cell (9%), and mixed non-small cell (2%).

The results of the study are shown in Table 8.

<table>
<thead>
<tr>
<th>Efficacy Parameter</th>
<th>TARCEVA (N = 488)</th>
<th>Placebo (N = 243)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Survival (OS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Deaths</td>
<td>378 (77%)</td>
<td>209 (86%)</td>
</tr>
<tr>
<td>Median OS in Months (95% CI)</td>
<td>6.7 (5.5, 7.8)</td>
<td>4.7 (4.1, 6.3)</td>
</tr>
<tr>
<td>Hazard Ratio (95% CI) (1)</td>
<td></td>
<td>0.73 (0.61, 0.86)</td>
</tr>
<tr>
<td>p-value (stratified log-rank test) (2)</td>
<td>p &lt; 0.001</td>
<td>p &lt; 0.001</td>
</tr>
<tr>
<td>Progression-Free Survival (PFS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Progression or Deaths (%)</td>
<td>402 (82%)</td>
<td>211 (87%)</td>
</tr>
<tr>
<td>Median PFS in Months (95% CI)</td>
<td>2.3 (1.9, 3.3)</td>
<td>1.8 (1.8, 1.9)</td>
</tr>
<tr>
<td>Hazard Ratio (95% CI) (3)</td>
<td></td>
<td>0.59 (0.50, 0.70)</td>
</tr>
<tr>
<td>Objective Response</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Objective Response Rate (95% CI)</td>
<td>8.9% (6.4, 12.0)</td>
<td>0.9% (0.1, 3.4)</td>
</tr>
</tbody>
</table>

(1) Cox regression model with the following covariates: ECOG performance status, number of prior regimens, prior platinum, best response to prior chemotherapy.

(2) Two-sided log-rank test stratified by ECOG performance status, number of prior regimens, prior platinum, best response to prior chemotherapy.

Figure 3 depicts the Kaplan-Meier curves for overall survival.

Figure 3: Kaplan–Meier Curves for Overall Survival of Patients by Treatment Group in Study 4

![Kaplan-Meier Curves](image-url)
14.4 NSCLC – Lack of Efficacy of TARCEVA Administered Concurrently with Chemotherapy

Results from two, multicenter, placebo-controlled, randomized, trials in over 1000 patients conducted in first-line patients with locally advanced or metastatic NSCLC showed no clinical benefit with the concurrent administration of TARCEVA with platinum-based chemotherapy [carboplatin and paclitaxel (TARCEVA, N = 526) or gemcitabine and cisplatin (TARCEVA, N = 580)].

14.5 Pancreatic Cancer - TARCEVA Administered Concurrently with Gemcitabine

The efficacy and safety of TARCEVA in combination with gemcitabine as a first-line treatment was assessed in Study 5, a randomized, double-blind, placebo-controlled trial in 569 patients with locally advanced, unresectable or metastatic pancreatic cancer. Patients were randomized 1:1 to receive TARCEVA (100 mg or 150 mg) or placebo once daily on a continuous schedule plus gemcitabine by intravenous infusion (1000 mg/m², Cycle 1 - Days 1, 8, 15, 22, 29, 36 and 43 of an 8-week cycle; Cycle 2 and subsequent cycles - Days 1, 8 and 15 of a 4-week cycle [the approved dose and schedule for pancreatic cancer, see the gemcitabine package insert]). TARCEVA or placebo was taken orally once daily until disease progression or unacceptable toxicity. The primary endpoint was survival. Secondary endpoints included response rate, and progression-free survival (PFS). Duration of response was also examined. The study was conducted in 18 countries. A total of 285 patients were randomized to receive gemcitabine plus TARCEVA (261 patients in the 100 mg cohort and 24 patients in the 150 mg cohort) and 284 patients were randomized to receive gemcitabine plus placebo (260 patients in the 100 mg cohort and 24 patients in the 150 mg cohort). Too few patients were treated in the 150 mg cohort to draw conclusions.

In the 100 mg cohort, baseline demographics of the overall study population were as follows: male (52%), white (88%), Asian (7%), black (2%), age < 65 years (53%), ECOG PS 1 (51%), ECOG PS 0 (32%), and ECOG PS 2 (17%). There was a slightly larger proportion of females in the TARCEVA arm (51%) compared with the placebo arm (44%). The median time from initial diagnosis to randomization was approximately 1.0 month. The majority of the patients (76%) had distant metastases at baseline and 24% had locally advanced disease.

The results of the study are shown in Table 9.

### Table 9: Efficacy Results: TARCEVA 100 mg Cohort (Study 5)

<table>
<thead>
<tr>
<th>Efficacy Parameter</th>
<th>TARCEVA + Gemcitabine (N = 261)</th>
<th>Placebo + Gemcitabine (N = 260)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Survival (OS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Deaths</td>
<td>250</td>
<td>254</td>
</tr>
<tr>
<td>Median OS in Months (95% CI)</td>
<td>6.5 (6.0, 7.4)</td>
<td>6.0 (5.1, 6.7)</td>
</tr>
<tr>
<td>Hazard Ratio (95% CI) (1)</td>
<td>0.81 (0.68, 0.97)</td>
<td>0.76 (0.64, 0.92)</td>
</tr>
<tr>
<td>p-value (stratified log-rank test) (2)</td>
<td>0.028</td>
<td></td>
</tr>
<tr>
<td>Progression-Free Survival (PFS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Progression or Deaths (%)</td>
<td>225</td>
<td>232</td>
</tr>
<tr>
<td>Median PFS in Months (95% CI)</td>
<td>3.8 (3.6, 4.9)</td>
<td>3.6 (3.3, 3.8)</td>
</tr>
<tr>
<td>Hazard Ratio (95% CI) (3)</td>
<td>0.76 (0.64, 0.92)</td>
<td></td>
</tr>
<tr>
<td>Objective Response</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Objective Response Rate (95% CI)</td>
<td>8.6% (5.4, 12.9)</td>
<td>7.9% (4.8, 12.0)</td>
</tr>
</tbody>
</table>

(1) Cox regression model with the following covariates: ECOG performance status and extent of disease.
(2) Two-sided log-rank test stratified by ECOG performance status and extent of disease.

Survival was evaluated in the intent-to-treat population. Figure 4 depicts the Kaplan-Meier curves for overall survival in the 100 mg cohort. The primary survival and PFS analyses were two-sided log-rank tests stratified by ECOG performance status and extent of disease.
Figure 4: Kaplan-Meier Curves for Overall Survival: 100 mg Cohort in Study 5

Note: HR is from Cox regression model with the following covariates: ECOG performance status and extent of disease. The p-value is from two-sided Log-Rank test stratified by ECOG performance status and extent of disease.

16 HOW SUPPLIED/STORAGE AND HANDLING
25 mg Tablets: round, biconvex face and straight sides, white film-coated, printed in orange with a “T” and “25” on one side and plain on the other side; supplied in:
Bottles of 30: NDC 50242-062-01

100 mg Tablets: round, biconvex face and straight sides, white film-coated, printed in gray with “T” and “100” on one side and plain on the other side; supplied in:
Bottles of 30: NDC 50242-063-01

150 mg Tablets: round, biconvex face and straight sides, white film-coated, printed in maroon with “T” and “150” on one side and plain on the other side; supplied in:
Bottles of 30: NDC 50242-064-01

Store at 25°C (77°F); excursions permitted to 15°C - 30°C (59°F - 86°F). See USP Controlled Room Temperature.

17 PATIENT COUNSELING INFORMATION
Skin rash, bullous and exfoliative skin disorders
- Advise patients that skin reactions can occur or worsen on sun-exposed areas while taking TARCEVA, and proactive intervention may include alcohol-free emollient cream and use of sunscreen or avoidance of sun exposure. Advise patients that hyperpigmentation or dry skin, with or without digital skin fissures, have been reported and in the majority of cases were associated with rash [see Adverse Reactions (6.1)].
- Advise patients that TARCEVA can increase the risk of bullous and exfoliative skin disorders and to seek immediately medical attention for severe skin reactions [see Warnings and Precautions (5.5)].

Diarrhea
Advise patients that diarrhea can usually be managed with loperamide and to contact their healthcare provider for severe or persistent diarrhea [see Adverse Reactions (6.1)].

Interstitial lung disease
Advise patients of the risk of severe or fatal ILD, including pneumonitis. Advise patients to contact their healthcare provider immediately to report new or worsening unexplained shortness of breath or coughing [see Dosage and Administration (2.4) and Warnings and Precautions (5.1)].

Renal failure
Advise patients of the risk of developing renal failure. Inform patients of the need for the healthcare provider to monitor kidney function and electrolytes [see Warnings and Precautions (5.2)].
Hepatotoxicity
Advise patients to immediately report signs or symptoms of hepatotoxicity [see Warnings and Precautions (5.3)].

Gastrointestinal perforations
Advise patients that TARCEVA can increase the risk of gastrointestinal perforation or fistula and to seek immediate medical attention for severe abdominal pain [see Dosage and Administration (2.4) and Warnings and Precautions (5.4)].

Cerebrovascular accident
Advise patients of the risk of cerebrovascular accident and see immediate medical attention [see Dosage and Administration (2.4) and Warnings and Precautions (5.6)].

Ocular disorders
Advise patients promptly to contact their healthcare provider if they develop eye signs or symptoms, lacrimation, light sensitivity, blurred vision, eye pain, red eye, or changes in vision [see Dosage and Administration (2.4) and Warnings and Precautions (5.8)].

Hemorrhage in patients taking warfarin
Advise patients who are receiving warfarin of the need to monitor INR or other coumarin-derivative anticoagulants [see Warnings and Precautions (5.9) and Drug Interactions (7)].

Hair and nail disorders
Advise patients that hair and nail disorders, including hirsutism and brittle and loose nails, have been reported [see Adverse Reactions (6.1)].

Embryo-fetal toxicity
- Advise pregnant women and females of reproductive potential of the potential risk to a fetus. Advise females of reproductive potential to inform their healthcare provider of a known or suspected pregnancy [see Warnings and Precautions (5.10), Use in Specific Populations (8.1)].
- Advise females of reproductive potential to use effective contraception during treatment with TARCEVA, and for 1 month after the last dose [see Use in Specific Populations (8.3)].

Lactation
- Advise women not to breastfeed during treatment with TARCEVA and for 2 weeks after the final dose [see Use in Specific Populations (8.2)].

Smoking
- Advise patients to contact their health care provider for any changes in smoking status and that the dose of TARCEVA may need to be adjusted if they smoke [see Drug Interactions (7) and Clinical Pharmacology (12.3)]
- Advise patients to stop smoking [see Clinical Pharmacology (12.3)].

Manufactured for:
OSI Pharmaceuticals, LLC, Northbrook, IL 60062
an affiliate of Astellas Pharma US, Inc.

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For further information please call 1-877-TARCEVA (1-877-827-2382).

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