1. What is lapatinib?

Lapatinib is a targeted (biological) therapy used to treat secondary breast cancer (when breast cancer cells spread to other parts of the body such as the bones, lungs, liver or brain). It is one of a group of cancer drugs called tyrosine kinase inhibitors (TKIs). Its generic (non-branded name) is lapatinib. Its branded name is Tyverb.

2. Who might be offered lapatinib?

You may be offered lapatinib if you have HER2 positive secondary breast cancer and have already had chemotherapy with or without trastuzumab.
Lapatinib is not routinely offered on the NHS. Your specialist team will be able to tell you if it might be of benefit and if you'll be able to receive it. Find out more about the availability of cancer drugs.

Lapatinib is usually taken in combination with other treatments such as chemotherapy or hormone therapy.

You may be given lapatinib as part of a clinical trial.

Lapatinib is not currently given for primary breast cancer.

3. How does lapatinib work?

Targeted (biological) therapies block the growth and spread of cancer. They target and interfere with processes in the cells that help cancer grow.

Some breast cancer cells have a higher than normal level of a protein called HER2 on their surface, which stimulates them to grow. This is called HER2 positive breast cancer). Lapatinib is called a dual TKI because it targets and blocks HER2 and another protein called HER1 or EGFR (epidermal growth factor receptor) that also stimulates breast cancer cells to grow. There are various tests to measure HER2 levels, which are done on breast tissue removed during a biopsy or surgery. If your cancer is found to be HER2 negative, then lapatinib will not be of benefit to you.

4. How is lapatinib given?

Lapatinib is taken as tablets once a day and should be taken every day. It’s important to take the tablets with water and to follow the instructions given to you by your specialist team. Lapatinib should be taken at least one hour before or one hour after a meal. It’s most effective if it’s taken at the same time each day and always before or after food.

If you miss a dose don’t take an extra dose to catch up and take your next dose at the usual time.

When treating secondary breast cancer, lapatinib is usually taken for as long as it is keeping the cancer under control.

If you want to stop taking lapatinib, talk to your specialist first.

While you are taking lapatinib you'll have regular blood tests to check the levels of your blood cells and how well the liver and kidneys are working.
5. Common side effects of lapatinib

Like any treatment, lapatinib can cause side effects. Everyone reacts differently to drugs and some people have more side effects than others. These side effects can usually be managed and those described here will not affect everyone.

Lapatinib is usually given together with chemotherapy or hormone therapy, so you may have side effects from those treatments too.

If you’re concerned about any side effects, regardless of whether they’re listed here, talk to your specialist team.

**Fatigue**

Fatigue is extreme tiredness that doesn’t go away with rest or sleep and may affect you physically and emotionally. It’s a very common side effect of breast cancer treatment. Tell your GP, specialist team or palliative care team, about your fatigue so you can be fully assessed and offered advice on how to manage it.

Read tips about managing and coping with fatigue.

**Loss of appetite**

You may not feel like eating, especially if you’re feeling sick. It might help to eat small meals, regularly.

Talk to your specialist team about this. They will help you with loss of appetite and may refer you to a dietitian.

**Nausea**

You may experience nausea (feeling sick) at times during your treatment, although most people will not actually vomit (be sick). If nausea and vomiting are affecting you, let someone in your specialist team know. Anti-sickness drugs can be prescribed to help. Try to eat small regular meals if possible and have regular drinks.

**Diarrhoea**

Tell your specialist team or GP if you have diarrhoea during treatment as they can prescribe drugs to help. Contact your specialist team if you have four or more episodes of diarrhoea in a 24-hour period. Drink plenty of fluids to avoid becoming dehydrated.

**Skin reactions**

Some people may have skin reactions such as a rash or dry itchy skin while taking lapatinib. Skin reactions are more likely when you are taking lapatinib with a drug called capecitabine (Xeloda).
Tell your specialist team if you have skin problems as they may be able to prescribe drugs to help improve them or adjust your treatment to reduce them.

**Hand-foot syndrome (Palmar-plantar syndrome)**

You may develop soreness and/or redness on the palms of your hands and soles of your feet (called Palmar-plantar or hand-foot syndrome). Your specialist team may prescribe creams to try to help with this.

**Other common side effects**

Other common side effects include:

- indigestion and heartburn
- constipation
- finding it difficult to sleep
- headaches
- back pain
- muscle and joint aches and pains
- sore mouth
- menopausal symptoms (such as hot flushes and night sweats)
- abdominal pain
- nose bleeds

**6. Less common side effects**

**Heart problems**

Occasionally lapatinib affects how the heart works. Tell your specialist team as soon as possible if you have symptoms such as feeling like your heart is racing, or feeling dizzy, breathless or lightheaded. You will usually have tests to check your heart function before and while taking lapatinib. This could be an echocardiogram (echo) or a multiple-gated acquisition (MUGA) scan.

**Liver problems**

Sometimes lapatinib can affect how the liver works. Tell your specialist team if you notice any itching or yellowing of the eyes or skin (jaundice). Your liver function will be monitored using blood tests throughout the time you are taking lapatinib.
Nail problems
Some people have nail problems, such as infections, while taking lapatinib.

7. Rare side effects

Allergic reaction
An allergic reaction is more likely to happen the first or second time you take lapatinib. Reactions can vary from mild to severe, although severe reactions are very rare. You may feel hot or notice skin rashes, itching, dizziness, headaches or shivering. Other symptoms include breathlessness, anxiety, flushing of the face or sudden need to pass urine. If you experience any of these symptoms you should tell your chemotherapy nurses as soon as possible.

Effects on the lungs
Rarely lapatinib can cause inflammation of the lungs, which may cause shortness of breath or a cough. Tell someone from your specialist team straight away if you experience these symptoms.

8. Blood clots
People with breast cancer have a higher risk of blood clots. Their risk is higher because of the cancer itself and some treatments for breast cancer. If the cancer has spread to other parts of the body (secondary breast cancer), this also increases the risk.

Having lapatinib increases the risk of blood clots such as a deep vein thrombosis (DVT). People with a DVT are at risk of developing a pulmonary embolism. This is when part of the blood clot breaks away and travels to the lung.

Blood clots can be harmful but are treatable so it’s important to report symptoms as soon as possible.

If you experience any of the following symptoms contact your local A&E department, GP or specialist team straight away:

- pain, redness/discolouration, heat and swelling of the calf, leg or thigh
- swelling, redness or tenderness where a central line is inserted to give chemotherapy, for example in the arm, chest area or up into the neck
• shortness of breath
• tightness in the chest
• unexplained cough (may cough up blood)

9. Medicines and food to avoid when taking lapatinib

There are a number of drugs that should not be taken with lapatinib, so it’s important to tell your specialist team about any prescribed or over-the-counter medicines you are taking.

Many people consider taking herbal medicines or supplements while having treatment for breast cancer. Lapatinib must not be taken with anything containing St John’s Wort. You should ask your specialist team before taking any herbal medicines or supplements. Lapatinib should not be taken with grapefruit or grapefruit juice as it may affect the way the drug works.

10. Sex and contraception

It’s important you don’t get pregnant when you’re taking lapatinib or for a few weeks afterwards because the drug can harm a developing baby. Some women can still become pregnant even if their periods are irregular or have stopped. Use an effective barrier method of contraception such as condoms during and for at least three weeks after stopping treatment.

Lapatinib and breast feeding

You’ll be advised not to breastfeed during treatment and for at least three weeks after your last dose. This is because there’s a chance your baby could absorb the drug through your breast milk, which could be harmful to them.
11. Vaccinations

You shouldn’t have any live vaccines while you’re having lapatinib. Live vaccines include measles, rubella (German measles), polio, BCG (tuberculosis), shingles and yellow fever.

Live vaccines contain a small amount of live virus or bacteria. These could be harmful and cause infections.

If you’re planning a trip and need vaccinations, discuss this with your specialist team.

If someone you live with needs to have a live vaccine speak to your specialist team or GP. They can advise what precautions you may need to take depending on the vaccination.

12. Flu vaccination

Anyone at risk of a weakened immune system, and therefore more prone to infection, should have the flu vaccine. This includes people having, or due to have, treatment for breast cancer. The flu vaccine is not a live vaccine so doesn’t contain any active viruses. If you’re already having treatment, talk to your specialist team about the best time to have your flu jab.

12. Further support

Being diagnosed with breast cancer can make you feel lonely and isolated.

Many people find it helps to talk to someone who has been through the same experience as them. Breast Cancer Care’s Living with Secondary Breast Cancer service provides an opportunity to meet people in a similar situation, and offers helpful support and information in a relaxed environment. You might also find it helpful to join one of our Live Chat sessions, or visit our online discussion Forum.

If you would like any further information or just want to talk things through, you can speak to one of our experts by calling our free Helpline on 0808 800 6000.

Last reviewed: July 2018
Next planned review begins 2020