**Abemaciclib (Verzenios)**

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1. **What is abemaciclib?**

Abemaciclib is a targeted (biological) therapy. This group of drugs block the growth and spread of cancer. They target and interfere with processes in the cells that cause cancer to grow.

Abemaciclib is the drug’s generic (non-branded) name. Its brand name is Verzenios.

When used to treat breast cancer, abemaciclib is taken alongside hormone (endocrine) therapy.
2. Who might be offered abemaciclib?

Abemaciclib may be offered to people who have locally advanced or secondary breast cancer that is both:

- oestrogen receptor positive (ER+) (where the hormone oestrogen helps the breast cancer to grow)
- HER2 negative (breast cancer that has a normal level of the HER2 protein)

If you haven’t had treatment for locally advanced or secondary breast cancer

You may be given abemaciclib in combination with an aromatase inhibitor or fulvestrant.

If you’ve had hormone therapy for secondary breast cancer

Some people will be offered abemaciclib in combination with an aromatase inhibitor or fulvestrant.

If your breast cancer has come back while taking hormone therapy for primary breast cancer

Some people may be offered abemaciclib in combination with an aromatase inhibitor or fulvestrant.

Availability

Abemaciclib is currently available on the NHS throughout the UK for people who haven’t already had any treatment for locally advanced or secondary breast cancer, in combination with an aromatase inhibitor.

It is also currently available in England through the Cancer Drugs Fund:

- for people who have had hormone therapy for locally advanced or secondary breast cancer, in combination with fulvestrant
- for some people whose breast cancer has not responded to treatment, or has come back, while taking hormone therapy for primary breast cancer, in combination with fulvestrant

You may be offered abemaciclib as part of a clinical trial.

Abemaciclib is not currently given for primary (early) breast cancer. However, clinical trials are looking at whether it may be useful.
3. How does abemaciclib work?

Certain proteins in the body cause cells to grow and divide. In ER positive (ER+), HER2 negative breast cancer, these proteins can become overactive and help breast cancer cells to grow. Abemaciclib works by blocking these proteins, helping to stop the cancer cells growing and dividing.

4. How is abemaciclib given?

Abemaciclib is a tablet. The prescribed amount of tablets must be taken whole with water, in the morning and the evening at about the same time each day. It can be taken with or without food.

If you’re taking abemaciclib with an aromatase inhibitor

Abemaciclib is taken twice a day, and the aromatase inhibitor is taken once a day.

If you’re taking abemaciclib with fulvestrant

Abemaciclib is taken twice a day.

Fulvestrant is given in two injections, one in each buttock. These are known as intramuscular (IM) injections. They are usually given every two weeks for the first three doses, then once a month for as long as you are taking abemaciclib. The injections may be given either at the hospital or at your GP surgery.

If you haven’t been through the menopause

Aromatase inhibitors and fulvestrant are suitable for women who have been through the menopause (when your periods stop).

If you haven’t been through the menopause, you will also have treatment to stop the ovaries producing oestrogen, either temporarily or permanently. This is known as ovarian suppression.

What happens if I miss a dose?

If you miss a dose of abemaciclib, or vomit soon after taking it, do not take an extra dose to make up for the one you missed. Keep to your usual amount and speak to someone in your treatment team.
How long will I take abemaciclib for?
You’ll have abemaciclib alongside hormone therapy for as long as your treatment team feels you’re benefiting from the treatment.

5. Common side effects of abemaciclib
Like any drug, abemaciclib can cause side effects. Everyone reacts differently to drugs and some people have more side effects than others. These side effects can usually be controlled and those described here will not affect everyone.

Because it’s given alongside hormone therapy, you may also experience side effects from that drug as well.

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

Diarrhoea
Diarrhoea is a very common side effect of abemaciclib and may sometimes be severe. The most likely time to develop diarrhoea is during the first week of treatment and it may last for around two weeks.

If you experience loose stools, it’s recommended that you start anti-diarrhoea medicine straight away, drink plenty of fluids and contact your treatment team.

Anti-diarrhoea medicine can be prescribed by your specialist or GP so you have it available at home before you start your treatment.

If you develop severe diarrhoea while taking abemaciclib, your doctor may decrease the dose, delay your next cycle of treatment or stop your treatment completely.

Effects on the blood
Abemaciclib can temporarily affect the number of healthy blood cells in the body.

Blood cells (white blood cells, red blood cells and platelets) are made by bone marrow (the spongy material found in the hollow part of bones) to replace those that are naturally used up in the body. Abemaciclib reduces the ability of bone marrow to make these cells.

You’ll have regular blood tests to check your blood count.
It's recommended that blood tests are done before you start treatment, then every two weeks for the first two months of treatment, and monthly for the next two months. After this your specialist will decide how often you'll need blood tests.

**Risk of infection**

Not having enough white blood cells can increase the risk of getting an infection (such as a chest infection).

Low white blood cell counts are common when taking abemaciclib.

When the number of white blood cells falls below a certain level, it's known as neutropenia. Having a high temperature with neutropenia (known as febrile neutropenia) is less common and occurs much less frequently than with chemotherapy.

If you develop low white blood cell counts while taking abemaciclib, your doctor may decrease the dose, delay your next cycle of treatment or stop your treatment completely.

**Contact your hospital immediately if:**

- you have a high temperature (over 37.5°C) or low temperature (under 36°C), or whatever your treatment team has advised
- you suddenly feel unwell, even with a normal temperature
- you have any symptoms of an infection, for example a sore throat, a cough, a need to pass urine frequently or feeling cold and/or shivery

Before starting abemaciclib you should be given a 24-hour contact number or told where to get emergency care by your treatment team. You may need antibiotics.

**Anaemia**

Having too few red blood cells is called anaemia. If you feel particularly tired, breathless or dizzy, let your treatment team know.

**Bruising and bleeding**

Abemaciclib can reduce the number of platelets, which help the blood to clot. You may bruise more easily, have nosebleeds or your gums may bleed when you brush your teeth. Tell your treatment team if you have any of these symptoms.

**Fatigue (extreme tiredness)**
It's common to feel extremely tired during your treatment. There are different ways of managing fatigue. You can speak to your treatment team or contact Breast Cancer Now’s Helpline (0808 800 600) for more information and support.

**Nausea and vomiting**
You may experience nausea (feeling sick) and vomiting (being sick). Although not usually required, anti-sickness drugs can be prescribed to help with this.

**Loss of appetite**
You may not feel like eating, especially if you feel sick. It might help to eat small meals regularly and drink plenty of liquids.

**Rash**
This can be uncomfortable, but using a moisturiser may help.

Use a high-factor sunscreen in the sun.

Your treatment team may suggest drugs such as antihistamines to reduce any itching.

**Hair thinning and hair loss**
Hair thinning and hair loss is very common when taking abemaciclib with an aromatase inhibitor. For more information about hair loss, download our Breast cancer and hair loss booklet.

**Other common side effects**
Other common side effects include:

- watery eyes
- abdominal (tummy) pain
- headaches

Your treatment team will be able to advise you on how to manage these.

6. **Less common side effects of abemaciclib**
Liver changes
Abemaciclib can cause problems with how the liver works. You will have blood tests to check your liver function while you’re having treatment.

If you develop problems with your liver, your doctor may decrease the dose, delay your next cycle of treatment or stop your treatment completely.

If you experience any of the following symptoms contact your treatment team straight away:

- yellowing of your skin or the whites of your eyes (jaundice)
- pain on your right side under the ribs
- bleeding or bruising more easily than usual
- feeling more tired
- passing dark brown urine

Dry skin
You may experience dry skin including mild scaling, roughness, feeling of tightness or itching.

It may help to:

- use a moisturiser regularly and avoid perfumed products
- protect your hands when doing household or outdoor chores
- rinse and dry your hands carefully, particularly after contact with cleaning products
- pat your skin dry with a soft towel, rather than rubbing vigorously
- take care when shaving
- wear cotton clothes where possible next to the skin and wash clothes in mild detergent

Change in taste
Your taste can change and some food may taste different (for example more salty, bitter or metallic). It can help to experiment with different types of food to find the ones you prefer to eat.

7. Rare side effects of abemaciclib

Allergic reaction
Very occasionally allergic reactions to abemaciclib can occur. Reactions can vary from mild to severe, although severe reactions are uncommon.
If you have any swelling, wheezing, chest pain or difficulty breathing after taking abemaciclib, contact your hospital immediately.

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. Abemaciclib is a treatment that can cause blood clots. If the cancer has spread to other parts of the body (secondary breast cancer), this also increases the risk.

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 treatment 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)

Find out more about blood clots »

9. Medicines and food to avoid when taking abemaciclib

There are a number of drugs that should not be taken with abemaciclib.

Tell your specialist about any prescribed or over-the-counter medicines you’re taking, especially medicine that contains ketoconazole – for example antifungal creams, gels or shampoos used to treat skin infections such as athlete’s foot.

Abemaciclib must not be taken with anything containing St John’s Wort. Ask for advice from your specialist before taking any herbal medicines or supplements.

Avoid eating grapefruit or drinking grapefruit juice while you are taking abemaciclib, as they can stop the drug working properly.

Abemaciclib contains lactose. If you know you are lactose intolerant discuss this with your treatment team first.
10. Sex and contraception

Taking abemaciclib while pregnant may be harmful to a developing baby. Some women can still become pregnant even if their periods are irregular or have stopped.

Both women and men should continue using an effective barrier contraception during treatment. Ask your treatment team how long you should continue using contraception after this.

While female fertility may not be affected, abemaciclib can decrease fertility in men. Men taking abemaciclib may want to talk to their treatment team about sperm preservation before starting treatment.

11. Breastfeeding

You'll be advised not to breastfeed during treatment and for at least three weeks after your last dose of abemaciclib. This is because there is a chance that your baby may absorb the drug through your breast milk, which may cause harm.

12. Vaccinations

You shouldn’t have any live vaccines while you’re having abemaciclib. 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 treatment team.

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

Flu vaccination

Anyone at risk of a weakened immune system, and therefore more likely to get an 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 treatment team about the best time to have your flu jab.
13. 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 Now’s Living with Secondary Breast Cancer service can provide an opportunity to meet those in a similar situation, and offers 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 Forum.

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

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