ovacome..
ovarian cancer

Chemotherapy

Ovacome is a national charity providing support and information to anyone affected by ovarian cancer.

We run a free telephone and email support line and work to raise awareness and give a voice to all those affected by ovarian cancer.

This booklet is part of a series giving clinical information about ovarian cancer.

It gives information about the chemotherapy drugs commonly used to treat those who have ovarian cancer.

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Chemotherapy for ovarian cancer

What is chemotherapy?

Chemotherapy is the name given to drug treatment that can kill cancer cells (cytotoxic). There are many different chemotherapy drugs that are used for different cancers. They work in various ways but often attack the cancer cell structures and DNA to stop or control the disease.

Chemotherapy drugs are used to treat ovarian cancer that has, or may have, spread. These drugs are carboplatin and paclitaxel (Taxol) in the first instance. This is called first line treatment.

There are other drugs that are not cytotoxic in the way they work which are increasingly being used to treat cancer. These affect other characteristics of cancer, such as unregulated growth, development of new blood vessels, and cancer's ability to avoid the immune system.

You can find more information about these drugs here:
www.ovacome.org.uk/targeted-therapies-booklet

Chemotherapy and these other drugs can be referred to as systemic anti-cancer treatment (SACT). If the cancer comes back, it may be treated again with the same chemotherapy drugs, or it may be treated with other drugs such as liposomal doxorubicin (Caelyx) or gemcitabine (Gemzar).

Chemotherapy drugs are often given through an intravenous drip in the hand or arm. Sometimes they are given through a permanent central line such as a Hickman line or a portacath. These lines are inserted under local anaesthetic through the chest into a large vein and can stay in place for months. Portacaths lie under the skin and are accessed using a needle.

A PICC line (peripherally inserted central catheter) can also be used. This is a thin tube placed in a vein in the upper arm and threaded through to the large vein near the heart. It is inserted using local anaesthetic and can stay in place throughout your chemotherapy treatment.

These lines can also be used to give you medicines or take blood samples.

Part of central or PICC lines will be visible. This part can divide into two or three sealed smaller tubes called lumens. If your line has lumens, you can have different treatments at the same time.

What chemotherapy will I need?

The chemotherapy you will be offered depends on how far your ovarian cancer has spread, this is the staging, and how active the cancer is, this is the grading.

If your cancer is at stage 1a and grade 1 or 2, then you will probably not be recommended to have chemotherapy.

If your cancer is at stage 1a and grade 3, or at stage 1c, then you might be offered carboplatin on its own.

Cancers which have spread further, to stage 2, 3 or 4 will probably need treatment with carboplatin and Taxol. These are given one after the other (usually Taxol first, then carboplatin) in a chemotherapy clinic session.

You can find out more about the staging of ovarian cancer at www.ovacome.org.uk/stages-of-ovarian-cancer-booklet

Sometimes there are reasons for not offering specific chemotherapy drugs. This may be because you are not fit enough, or at an increased risk of side effects, such as nerve damage.

Having treatment

When you are ready to start your chemotherapy treatment you will be given an appointment at the chemotherapy day unit. You may have a CT scan to check the extent of your ovarian cancer before treatment. You will be asked to give a blood sample to check that your kidneys, liver, immune system and red cells are working well. Your blood pressure will be taken.

On the day of your appointment, you will see a doctor or a nurse before the treatment starts, and they will ask you about your recent health. If the blood results are safe for treatment, your chemotherapy drugs will be prepared for you.

If you don’t have a line, the nurse will put a cannula (a short thin tube) into your vein and inject pre-chemotherapy medications through it. These include anti-sickness drugs and medicines to reduce the risk of allergic reactions and hypersensitivity.

The nurse will then set up your chemotherapy drip, which goes through the line or cannula into your blood stream. If you are having Taxol this will be given first and takes three hours. It will be followed by carboplatin which usually takes about an hour.

Tell the nurse if your vein or arm becomes painful or swollen. Plan to stay in the chemotherapy day unit for several hours.

When the drip has finished you can go home. This process is described as a session of chemotherapy. You will be given more anti-sickness drugs and, if required, steroids to take home with you and instructions on how to take them.

Very occasionally chemotherapy may cause an allergic reaction or hypersensitivity while it is being given. **Signs of this happening are:**

- A rash
- Itching
- Looking flushed
- Being short of breath
- Swelling of the face or lips
- Feeling dizzy
- Abdominal, back or chest pain
- Feeling unwell

If you experience any of these symptoms while you are being given chemotherapy, tell the nurse immediately. You will then be given drugs to minimise the risk of a reaction; the flow rate of the chemotherapy may be slowed down, the session may be delayed, or the chemotherapy stopped.

Chemotherapy side effects

All drugs have potential side effects but that does not mean they will affect you. Side effects can be mild to severe, they may improve during the treatment - or get worse. More side effects may develop as your treatment progresses.

Side effects may depend on how often you have had the drug before, your health and the dosage. Tell your team if you experience any side effects and ask for help to manage it. If side effects are sudden or severe, call the 24/7 chemotherapy emergency contact number you will have been given.

Treatment with carboplatin

Carboplatin is a platinum-based drug that attacks cancer cells by damaging the DNA. It has been used for many years as an effective treatment for ovarian cancer and some other cancers too.

It is often given in a 21-day cycle. That means you will have a carboplatin chemotherapy session every 21 days, usually for a total of six cycles.

Like all drugs, carboplatin has benefits and risks, which include side effects. Most patients feel well on the day they receive their carboplatin and on the next day too. They are more likely to experience side effects on the second and third days after treatment. Your medical team can give you medication to help.

All drugs have potential side effects; but that does not mean they will affect you. Side effects can be mild to severe, they may improve during the treatment - or get worse.

Common side effects experienced by 10 per cent (10 in 100) or more of those using carboplatin:

- Low blood count which may cause anaemia, increased infection risk, bruising and bleeding.

Side effects experienced by between 10 per cent (10 in 100) and one per cent (one in 100) of people using carboplatin are:

- Hair thinning (not usually complete hair loss).
- Loss of hearing high pitch sound (this is usually temporary).
- Ringing in the ears.
- Numbness and/or tingling called peripheral neuropathy can arise after using carboplatin. Tell your chemotherapy nursing team if you experience this.

Find out more here: www.ovacome.org.uk/peripheral-neuropathy-booklet

Less than one per cent (1 in 100):

- Blood clots, tell the nurse if you have redness, pain or swelling in your legs, chest pain or breathlessness.

Treatment with Taxol

Taxol is the brand name for paclitaxel. It is made from the needles of the yew tree. It was first discovered in the 1960s and is an effective chemotherapy drug that has been used to treat ovarian cancer and other cancers. It works by stopping cancer cells from dividing into new cells and spreading.

Taxol is given with carboplatin to those with ovarian cancer at stage 2, 3 or 4 meaning that the cancer has spread or is at a later stage. Cancers at these later stages are more likely to recur. The addition of Taxol to carboplatin is used to control the cancer and maximise the time between any recurrences. It is usually given in cycles of 21 days. Taxol can also be given weekly to treat platinum-resistant ovarian cancer.

It is given through a drip into the bloodstream and is usually given before carboplatin. In the chemotherapy unit, before you receive Taxol, you will be given a steroid injection or steroid tablets plus an antihistamine injection to minimise any allergic reaction you may have to the drug. You will also be given medicine to stop heartburn.

Taxol side effects

Like all drugs, Taxol has side effects. These are side effects that more than 10 per cent (10 in 100) people will experience:

- Low blood count which may cause anaemia, increased infection risk, bruising and bleeding.
- Aching joints, which starts a couple of days after treatment and lasts about five days.
- Mild allergic reactions such as a rash or redness on the face.
- Numbness and/or tingling in fingers and toes called peripheral neuropathy (PN). The risk of developing this can depend on the dosage and number of Taxol treatments you are given. Tell your chemotherapy nursing team if you experience PN. Sometimes peripheral neuropathy can be a long-term side effect.

- Hair loss which is usually temporary and can affect all body hair. Regrowth starts when treatment ends. You may be offered scalp cooling which can prevent hair loss, and you can ask your team about whether this service is available where you are treated. You may qualify for support towards the cost of a wig. You can ask your social worker or clinical nurse specialist for information on this.

Some other less common Taxol side effects are experienced by one per cent to10 per cent of people (between one in 100 and 10 in 100):

- Redness, swelling or leaking around the site of the drip (tell the nurse immediately).
- Skin rashes and nail changes.

There are other much less common side effects that fewer than one per cent (one in 100) of people will get:

- Blood clots, tell the nurse if you have redness, pain or swelling in your legs, chest pain or breathlessness.
- Abdominal pain including feeling bloated or having wind or indigestion.
- Low blood pressure.
- Changes to your heartbeat, it may feel irregular or slow. Tell your medical team, it is usually temporary but can be permanent in very few people.
- Muscle weakness in the arms, hands and legs.
- Itching.
- A high temperature - over 38 degrees centigrade.
- Lung changes that can cause coughing and breathlessness.
- Swelling in the arms and legs caused by fluid build-up.

- Headaches.
- Hearing or sight disturbances.
- Dizziness or fitting.
- Severe skin reaction, wear sun protection on your hands and feet during treatment.
- Changes in your finger or toenails.

Caelyx

Caelyx can be given in combination with carboplatin instead of Taxol. If your ovarian cancer becomes resistant to platinum-based drugs such as carboplatin, you may be offered Caelyx on its own or in combination with other drugs as an alternative to carboplatin.

Platinum resistance is generally defined as when ovarian cancer comes back less than six months after carboplatin treatment ended.
This indicates that the cancer is resistant to platinum drugs, so they will not work effectively.

Caelyx was originally developed from anticancer compounds found in soil-based microbes. Caelyx is the brand name of liposomal doxorubicin. It works by attacking ovarian cancer cells' DNA and stopping it from creating new cells and spreading.

Caelyx comes in the form of a bright red liquid that is given through a drip into the bloodstream using a cannula. It is usually given every four weeks for between four and eight cycles. Each treatment takes up to two hours to go through. The red colour means your urine may be red or pink for around 48 hours after treatment.

You will be given blood tests, and your heart may be checked using an ECG (electrocardiogram) or an echocardiogram which uses ultrasound. This is to make sure you are well enough to have the treatment.

Caelyx side effects

More than 10 per cent (10 in 100) of people using Caelyx will experience one or more of these more common side effects:

- PPE (palmar-plantar erythrodysesthesia) is a redness, soreness and peeling on the palms of the hands and soles of the feet. You can minimise and help to treat this by keeping cool and avoiding heat and hot water. You can try holding ice packs during treatment; not wearing gloves socks or tight shoes; not rubbing your skin and avoiding vigorous exercise. Your nurse can advise you on suitable creams to take care of your skin. Tell your nurse if you see signs of PPE.
- Low blood count which may cause anaemia, increased infection risk, bruising and bleeding.
- Sores in the throat that make it painful to swallow (tell your doctor or nurse).
- Weight loss.
- Hair thinning, sometimes hair loss.
- A day or two after having Caelyx, your urine may be coloured red or pink.

Between one per cent and 10 per cent (one in 100 to 10 in 100) will experience these less common Caelyx side effects:

- Watery or sore eyes or blurred vision.

- Heart muscle damage, this usually recovers when treatment ends. Your heart will be checked before each session.
- Sensitivity to the sun, stay in the shade and use protection until several months after treatment ends.
- Itchy inflamed skin.
- Abdominal pain.
- Thrush (fungal infection) in the mouth, easily treated with solution and pastilles.
- Cold sores.
- Sleeplessness.
- Dizziness.
- Bone, muscle or joint pain.
- Swollen legs, hands and arms caused by a build-up of fluid.
- Nail changes.
- Sore tongue.

Less than one per cent (one in 100) experience the following rare Caelyx side effects:

- Blood clots; tell the nurse if you have redness, pain or swelling in your legs, chest pain or breathlessness.
- Confusion.
- Lung changes; tell your doctor if you develop a cough, wheezing, breathlessness or if existing breathing problems get worse.

Treatment with Gemcitabine

Gemcitabine can be used to treat recurrent ovarian cancer that is platinum resistant or platinum sensitive. It can be used in combination with carboplatin and with cisplatin to treat late stage, recurrent and platinum resistant ovarian cancer. It can also be used as a single agent.

Gemcitabine works by destroying quickly dividing cells, such as cancer cells. It takes about 30 minutes to infuse into the bloodstream.

Side effects that affect more than 10 per cent (more than 10 in 100) of people using gemcitabine:

- An increased risk of infection, due to a drop in white blood cell levels.
- Breathlessness and looking pale, due to a drop in red blood cells (anaemia).
- Bruising, bleeding gums, nosebleeds, tiny red spots (petechiae), bruises on the limbs, due to a drop in platelets in the blood.
- Difficulty breathing, wheezing and coughing, tell your team straight away.
- Hair thinning, from your head or all of your body. The hair will grow back but may be softer, or a different colour or curlier than before.

You may be offered scalp cooling which can minimise hair loss and you can ask your team about whether this service is available where you are treated. You may qualify for support towards the cost of a wig. You can ask your social worker or clinical nurse specialist for information on this.

- Feeling or being sick.
- Liver changes, these usually return to normal after treatment.
- Flu-like symptoms such as headache/muscle aches/ high temperature and shivering, you can take paracetamol to help.
- Swelling of the face, hands, and feet, this usually goes away on its own.
- Blood and protein in your urine, this usually goes away on its own.

- Skin rash, dry skin and itching, your nurse will advise on skin products that may help.
- Tiredness and weakness. This can be helped by gentle exercise.

Side effects that affect one to 10 per cent (one in 100 to 10 in 100):

- Blood clots, tell the nurse if you have redness, pain or swelling in your legs, chest pain or breathlessness
- Diarrhoea/constipation.
- Sleep problems.
- Loss of appetite.
- Coughing.
- Back or muscle pain.
- A runny nose.
- Sweating, headaches, drowsiness.

Side effects that affect fewer than one per cent (fewer than one in 100) of people using gemcitabine:

- Kidney problems.
- Heart problems.
- Stroke.
- Allergic reactions – skin rash, shortness of breath, redness or swelling of the face, dizziness. Tell your nurse if you have these. Some allergic reactions can be life threatening.
- A disorder of the nerves causing fits, headaches, confusion and changes in vision. This is very rare but reversible, so contact your team straight away.
- Severe peeling or blistering of the skin. A severe skin reaction that can start as tender red patches.

- You may be feverish, and your eyes may be more sensitive to light. This is Stevens-Johnson syndrome and can be life threatening so tell your team straight away.

Treatment with Topotecan

Topotecan can be used to treat ovarian cancer after a recurrence following first line treatment. It can be can also be used if your cancer has become platinum resistant. Topotecan can be given in combination with other chemotherapy drugs. This may be into a vein, or as capsules taken at home.

Side effects of Topotecan

- Hair loss,
- Anaemia
- Loss of appetite
- Gastrointestinal upset
- Constipation/diarrhoea
- Fatigue
- Feeling and being sick
- Low platelet count
- Low white blood cell count
- Itching
- Jaundice
- Sore mouth and gut
- Breathing problems
- Bleeding

Caring for yourself when you are having chemotherapy

There are steps you can take to help yourself while you are having chemotherapy by watching for any signs of infection, reporting any side effects promptly to your medical team and protecting yourself from risks of infection.

Chemotherapy suppresses the immune system and so carries a risk of infection. Contact your hospital by calling the 24/7 chemotherapy emergency number immediately if you develop signs of infection such as: headaches, sore throat or mouth, breathing difficulties, cough, flu-like symptoms, pain on urination, diarrhoea, rashes, aches, shakes, and shivers.

Also call the emergency telephone number or local A+E if your temperature rises to 38 degrees centigrade. Do not contact your GP.

Protect yourself by avoiding people with obvious infections and avoid crowded places. Ask your chemotherapy nursing team about your diet and any foods to avoid, and the timing of any vaccines.

If you are having treatment from a doctor or a dentist that is not to do with your cancer, always tell them that you are having, or have had, chemotherapy. Only your oncologist (cancer doctor) can make decisions about your chemotherapy in discussion with you. Any other clinicians must contact your chemotherapy unit to discuss any treatment that may affect your chemotherapy.

Tell your oncologist if you are thinking of using complementary or alternative treatments or supplements as some may affect your chemotherapy.

For more information on chemotherapy side effects see the NHS webpage here:

www.nhs.uk/conditions/chemotherapy/side-effects

We welcome your feedback on this booklet. Please email ovacome@ovacome.org.uk or call 0800 008 7054. If you would like to discuss anything about ovarian cancer, please phone our support line on 0800 008 7054 Monday to Friday between 10am and 5pm. You can also visit our website at www.ovacome.org.uk. This is one of a series of information booklets produced by Ovacome. You can see them here: ovacome.org.uk/information

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