

Prof Dr med. Jalid Sehouli

# Maintenance therapy in Ovarian, Fallopian Tube and Peritoneal Cancer



deutsche stiftung eierstockkrebs  
german ovarian cancer foundation

## Editorial note

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PODCAST



Die Zweite Stimme



Film: Stilles Erbe



Prof. Dr. med. Jalid Sehouli

### The new pillar in ovarian cancer therapy

On the basis of national and international studies, maintenance therapies form part of the so-called multimodal treatment strategy in ovarian cancer. In the case of ovarian, fallopian tube and peritoneal cancer, through the introduction of maintenance therapies, the treatment results for controlling tumours have been able to be improved considerably in recent years. After surgery and chemotherapy, maintenance therapy is now the third column in the multimodal treatment of ovarian, fallopian tube and peritoneal cancer which should be offered to every patient with an advanced tumour stage. In addition to tumour control, aspects of quality of life that are closely linked to the control of symptoms, are of particular importance.

For the first time, a patient brochure is focusing on maintenance therapies for ovarian cancer: on the one hand to draw attention to this modern treatment option, and on the other hand to answer questions that are associated therewith. Along with tumour control, maintenance therapies are intended to preserve the quality of life of the patients. Therefore, on the basis of the definition of “health” by the World Health Organisation (WHO), we have chosen a main theme for the brochure that addresses the dimensions of social, physical and emotional well-being: “Stability, vitality and enjoyment of life.” To accompany this, we would like to describe this motto both pictorially and by way of creative writing exercises.

We want to encourage you to discuss the topic of maintenance therapy and everything about it that is unclear, directly with the doctors treating you. This is because, according to the results of many different national and international surveys, such discussion is, and will remain, the best and most important source of information.

We hope that you will find our brochure useful and look forward to receiving your comments and suggestions.

Your

**Professor Jalid Sehouli**

German Ovarian Cancer Foundation

### Facts about ovarian, fallopian tube and peritoneal cancer

- Every year, throughout the world around 240,000 women develop ovarian, fallopian tube or peritoneal cancer, with around 8000 cases in Germany. They are among the seven most common types of cancer in women.
- Ovarian cancer develops on the surface cells of the ovaries. The specialist medical term is ovarian carcinoma.
- Fallopian tube cancer (tubal cancer) is a malignant disease of the fallopian tube (Latin: tuba uterina, Greek: salpinx).
- The peritoneum (Greek: peritonaion, “stretched over”), which as skin lines the entire abdominal cavity, can also be the place of origin of malignant cells (peritoneal carcinoma).
- Both clinically and scientifically, no distinction is made between ovarian and fallopian tube cancer, as ultimately, they form one and the same clinical picture. The tumour biology of fallopian tube cancer is very similar to that of ovarian cancer so the surgical and drug-based treatment strategies are identical. In currently on-going studies it could also be shown that women with ovarian, fallopian tube and peritoneal cancer should be treated with the same treatment methods.
- A feature of ovarian, fallopian tube and peritoneal cancer is the early spreading of tumour cells in the peritoneum and lymph nodes. They are therefore often only diagnosed in an advanced tumour stage. Spreading (metastasis) outside the pelvic areas is known as tumour stage III according to the currently valid FIGO classification (FIGO: International Federation of Gynaecology and Obstetrics).
- The prognosis depends on various factors: the tumour stage, the post-operative residual tumour as well as other health factors (e.g. general condition, organ functions).
- Participation in clinical studies is considered to be a mark of the quality of a treatment centre. Ask about the possibility of taking part in a study by the AGO (Research Group on Gynaecological Oncology) and NOGGO (North-East German Society for Gynaecological Oncology). Also visit the information page:
- [www.studienportal-eierstockkrebs.de](http://www.studienportal-eierstockkrebs.de)

### The 3 pillars of multimodal ovarian cancer therapy

#### 1. Surgery

At the time of first diagnosis, the treatment nearly always starts with surgery. In a relapse situation (relapse = recurrence of the disease), surgery is an option which has to be discussed with experienced and specialist doctors (gynaecological oncologists).

The result of the first operation is one of the most important prognostic factors in ovarian, fallopian tube and peritoneal cancer.

#### 2. Chemotherapy

As a rule, the operation is followed by chemotherapy. This is administered via a vein.

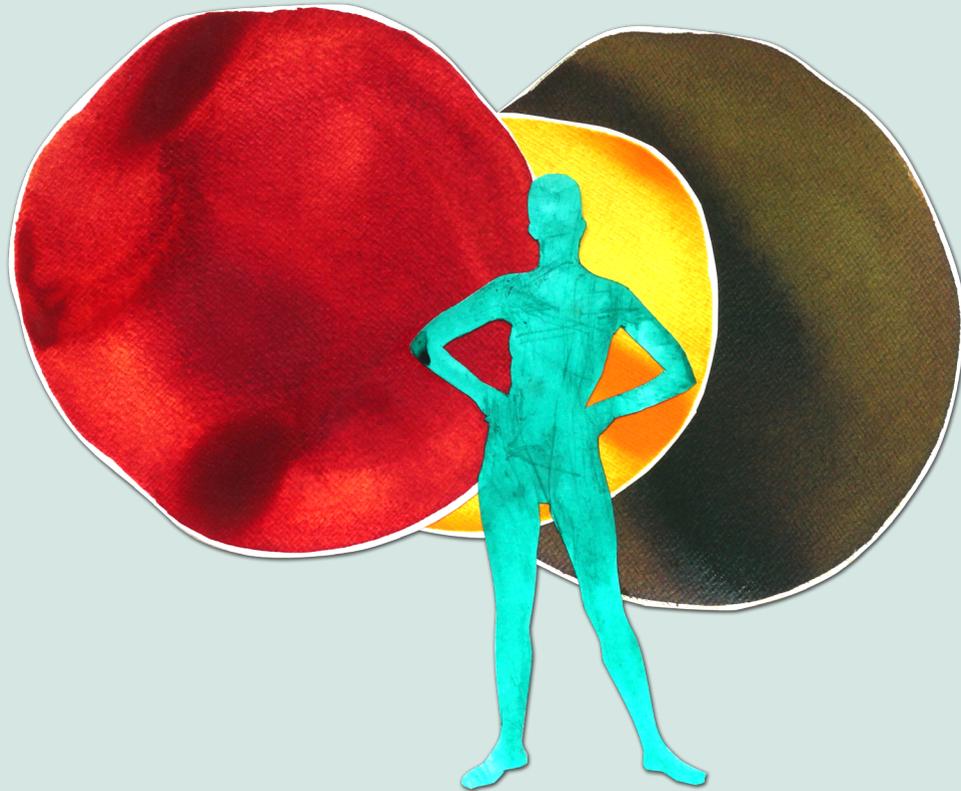
Even if the tumour has been operated on, non-visible, microscopically small, malignant cells are often left behind which can then be the starting point for a relapse. Various studies have clearly shown that chemotherapy after the operation can considerably reduce the risk of a relapse.

Chemotherapy can then be used again if a relapse occurs during the maintenance therapy.

#### 3. Maintenance therapy

Maintenance therapy means a longer treatment to consolidate the status that has already been achieved (e.g. following chemotherapy). Maintenance therapy is always administered over a longer period of time.

This therapy is given in what is known as first-line therapy in parallel with chemotherapy and is continued after the end of chemotherapy. The concrete duration is dependant on the administered medication or changes in the course of the disease.



### Writing exercise

For more **stability**, vitality  
and enjoyment of life

*Stability: "I am more!"*

*Write out 10 times, without shortening, the sentence:  
"I am a woman who ...". Full of pride about what  
and who you are, beyond what is generally  
considered a illness.*

*There is sooo much in you....*

*Then write a story in which a woman  
regains her enjoyment of life, vitality and stability:  
A heroine like you is happy in her everyday life.  
A problem arises. Everything is different. She goes  
out into the world. Unexpected helpers bear a  
gift. The heroine uses her strengths. She solves  
the problem. Slowly she regains her stability.  
Life goes on .... more intensively than before.*

## Knowledge is important: Understanding the drugs-base therapy

Thanks to numerous drug-based and non-drug-based measures, much can be done to counter side effects

### How does chemotherapy work?

Most drugs used in chemotherapy (cytostatics) follow a common basic principle: they intervene in the metabolic processes of cancer cells and thereby prevent cell growth and the division of cancer cells.

Exploited above all in the treatment of cancerous diseases, is the property of cancer cells to divide and multiply very quickly. The drugs used in chemotherapy mainly have an effect in cells which grow quickly and divide often, as these cells have a high metabolic activity and thereby offer the drugs a good target to attack.

Standard chemotherapy consists of substances from two classes of platinum-based as well as taxan-based (developed from the yew tree) drugs. They attack and destroy the hereditary material (the DNA) of the cancer cells. "Strand breaks" occurs in the DNA, resulting in the death of the cancer cells.

## Chemotherapy

Chemotherapy takes place after the operation in order to destroy any cancer cells that may remain in the body. It is not always possible to completely remove these during a surgical procedure. This is linked, among other things, to the fact that ovarian, fallopian tube and peritoneal cancer is often only detected late. The tumour may by then have already spread to other parts of the body, forming metastases.

In turn, the result of chemotherapy forms the basis of the maintenance therapy. Also, if a relapse occurs during the course of the maintenance therapy, renewed chemotherapy can be considered as a treatment option.

### Managing side effects

In the human body there are also other cells which exhibit a high rate of growth and division. The cytostatics also affect these, which can lead to side effects in the entire body. "No effect without side effects" – unfortunately this also applies to all anti-cancer drugs. Every woman experiences these, though differently in terms of manifestation and strength.

Typical side effects of many cytostatics are:

- temporary damage to blood cell formation
- hair loss
- nausea and vomiting
- feelings of numbness
- fatigue syndrome (chronic exhaustion)
- constipation and diarrhoea (also after extensive intestinal surgery)

These symptoms can also persist for months and years after chemotherapy. It is therefore very important that you inform your doctors of all complaints, even after the cancer therapy has already ended. Fatigue is the most common side effect of chemotherapies. It is a multilayer clinical picture (syndrome) which can manifest itself through various symptoms: early tiring, shortness of breath, feeling of heaviness in the legs or difficulties walking longer distances.

Sleeping and concentration problems can also arise. Patients often suffer from loss of appetite. Anaemia is also often present, which can make physical weakness worse. A blood count can clarify this. If anaemia is present, this can be corrected with blood products or hormone injections.

For nausea and vomiting there is a broad range of effective medicines which your doctor can fall back on.

The symptoms can sometimes recede during the course of the treatment.

Many patients report that they have taken action themselves to do something for their well-being.

These things can help with exhaustion:

- Keeping a diary in which set and achieved goals as well as daily routines and symptoms are recorded.
- Frequent walks and light physical activities in the fresh air
- Eating several small meals
- Ensuring restful sleep and sleep hygiene (comfortable environment, no big meals before going to bed etc.)
- Delegating strenuous tasks to friends and relatives

Always talk openly with your doctor about symptoms, side effects and things that are uncertain. For most side effects there are safe and effective treatment options.

Today, maintenance therapies are a fixed component of ovarian cancer therapy.

### Maintenance therapy

#### Maintenance therapy – what it is?

Maintenance therapy is today a fixed component in the treatment of many cancer diseases. The aim of maintenance therapy is to preserve or stabilise the effect and/or tumour control of the preceding chemotherapy. This means that maintenance therapy is always administered over a longer period of time.

#### This is what the experts say

**Prof Dr med. Jalid Sehouli**

*“In advanced ovarian, fallopian tube and peritoneal cancer and in the event of recurrence of the disease, maintenance therapy should always be an option.”*

#### Why is maintenance therapy of such great importance in ovarian, fallopian tube and peritoneal cancer?

Only through the development of targeted drugs, such as antibodies or the so-called PARP inhibitors, is it possible to offer patients with ovarian and/or peritoneal cancer a maintenance treatment in the first place. For the very first time, the new substances make long-term therapy after surgery and chemotherapy possible. Through this, they provide the opportunity of making the life-threatening disease into a chronic one - i.e. a disease which, though not curable, is one with which the patients can live longer or survive.

In older studies it was initially attempted to improve the long-term results in the patients through a longer chemotherapy duration, i.e. through prolonging and increasing the number of chemotherapy cycles. However, these studies showed no improvement in the survival data. This even harmed the patients, as side effects such as numbness, anaemia and physical weakness increased.

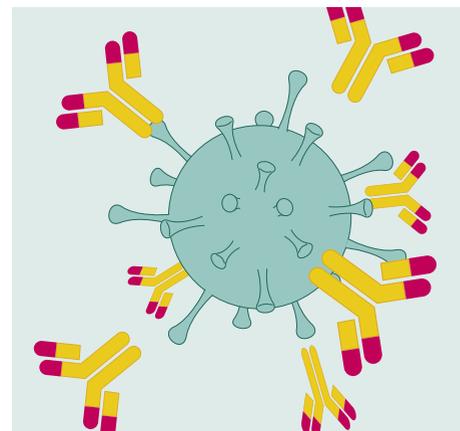


Figure: Antibodies dock on the cancer cell.

#### Maintenance therapy with antibodies

The first successful maintenance therapy for ovarian cancer could be introduced with the launch of the tumour vessel blocker Bevacizumab in 2011. This substance belongs to those known as antibodies.

Treatment with specific antibodies forms part of the “targeted” cancer therapies. These drugs only attack the cells that are receptive to them. This is known as the “lock-and-key principle”. An antibody finds certain structures on the tumour cells, docks onto them and switches the cells in question off.

Bevacizumab inhibits the important growth factor VEGF (Vascular Endothelial Growth Factor). VEGF is an important endogenous messenger substance. It is decisive for the development of blood vessels which the tumour needs to “feed” itself. Just like healthy organs and tissues, a malignant tumour such as ovarian cancer requires oxygen and various nutrients in order to grow. These are transported to the tumour via the blood. However, as of a certain tumour size, the tumour needs its own blood vessels to supply itself. The formation of these new blood vessels is promoted by the growth factor VEGF. In specialist language, this process is called “neo-angiogenesis”. This leads to persistent growth of the tumour, as cancer cells have a special property. They do not die off, as normal cells do permanently, when their life cycle ends.

Bevacizumab recognises the structure on the cancer cells which is responsible for the neo-angiogenesis docks onto it and deactivates it. The cancer cell thus loses the ability to form new vessels.

In this way, tumour growth and the spread of tumour cells in the body can be stopped.

#### This is what the experts say

**Prof Dr med. Elena Ioana Braicu**

*“Please inform the doctors treating you if you have side effects or symptoms, even if you cannot attribute them to the disease or drugs.”*

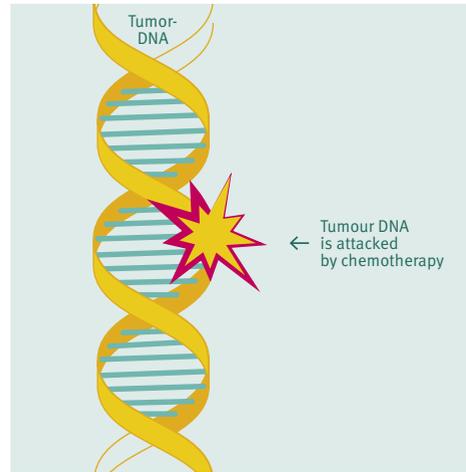


Figure: Effect of the chemotherapy

#### For whom is antibody treatment suitable?

This therapy is given in what is known as first-line therapy in parallel with chemotherapy, after the end of which it is continued for a further year.

Bevacizumab is also used in patients who have suffered a relapse and have previously not had this kind of treatment. Here, the substance is administered without a time period being specified, whereby the efficacy (absence of tumour growth) and the tolerability are the deciding factors for the duration of treatment.

#### Maintenance therapy with PARP inhibitors

A few years ago, a further substance class added to the maintenance therapy for ovarian, fallopian tube and peritoneal cancer: the so-called PARP inhibitors (repair enzyme inhibitors).

A vitally important capacity of our body is being able to repair defective gene structures. The “PARP mechanism” is responsible for this. PARP stands for the scientific term “Poly (ADP-Ribose) Polymerases”. These endogenous substances are enzymes that are found in many cells. They have important functions in the body, when, for example, due to disease or other events, damage to certain DNA strands occurs. They repair this, so that the body is healthy again.

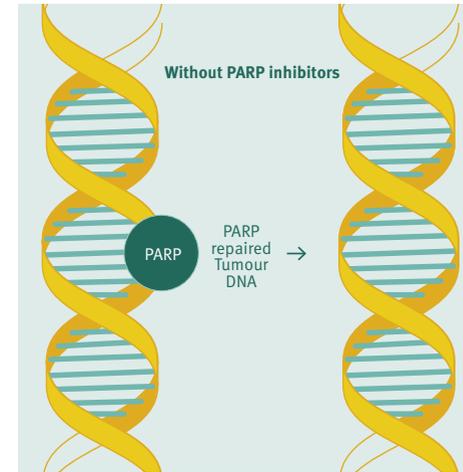


Figure: Effect of PARP

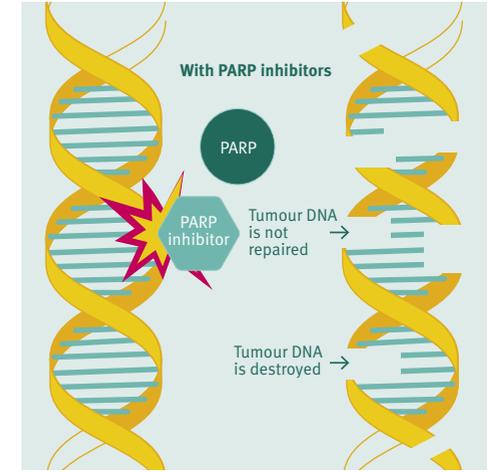


Figure: Effect of PARP inhibitors

However, in cancer medicine, this actually very important factor can bring about precisely the opposite of what is achieved with chemotherapy. The cancer cells attacked and made defective by platinum-based chemotherapy can release PARP and thereby repair their cell structure making it functional again. Through this, the effect of the treatment is greatly compromised as the tumour cells can recover and grow again. This can result in a relapse. PARP inhibitors should prevent this. This repair mechanism of the cancer cells is impeded. Double strand breaks occur in the DNA and the cancer cells die off for good. Currently, various PARP inhibitors are available for ovarian, fallopian tube and peritoneal cancer. These have gone through intensive research programmes.

In contrast to Bevacizumab, treatment with PARP inhibitors does not take place in parallel with chemotherapy, but only after the completion of successful platinum-based chemotherapy, in order to prevent tumour cell repair for a longer term. Preconditions are therefore that the platinum-based chemotherapy has successfully controlled the tumour disease, that there are no indications of tumour growth, and that the tumour signs have decreased.

#### This is what the experts say

**Carolin Masur**  
(Former patient and co-founder of the German Ovarian Cancer Foundation)

*“Participation in a study is always the best option and is also a sign of quality.”*

Some side effects are a consequence of the chemotherapy.

For first-line treatment, this therapy is currently only approved for women with a so-called BRCA mutation (detected in blood or tissue). In the relapse situation, it is approved for all patients with high-grade carcinoma. But here too, a previous response to platinum-based chemotherapy is required. Depending on the substance, the treatment can be time-limited or can be continued until the disease progresses.

Treatment duration:

- In first-line therapy: overall over a period of 24 months, in the case of response and further detection of tumours also longer
- In the relapse situation: for as long as the tumour has not grown (progression) or until
- the drugs are no longer tolerated

#### What side effects have to be anticipated with the maintenance therapy?

This depends on various factors, above all on the type of maintenance therapy and which after-effects of preceding anti-cancer treatments are present.

Side effects are often still a consequence of the chemotherapy. This applies particular in the case of fatigue or anaemia which can still persist for a long time, or occur late. In addition, various side effects increase from chemotherapy cycle to chemotherapy cycle. These are known as cumulative (accumulating) side effects. Sometimes they can also be directly linked to the cancer or completely different causes.

If you develop troublesome or persistent symptoms, discuss these as soon as possible with your doctor. There are various drug-based and non-drug-based measures which can help you.

#### Bevacizumab:

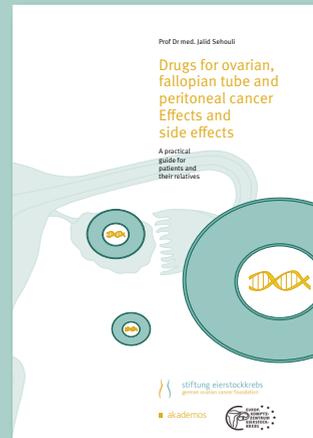
- High blood pressure: this can generally be controlled well with drugs. Regular blood pressure measurements are therefore important.
- Kidney function disorders: to react to any disorders in good time, the protein concentration in the urine could be checked regularly.
- Delayed wound healing: before a planned operation, treatment should be paused for around three weeks.
- Thromboses and embolisms: Blood thinners are taken after consulting the doctor.

#### PARP-inhibitor:

The possible side effects of PARP inhibitors, which, however, are usually only mild, include:

- Fatigue syndrome (exhaustion)
- Nausea/vomiting
- Stomach pain
- Changes in taste
- Diarrhoea or constipation
- Loss of appetite
- Anaemia
- Reduced platelets
- Headache
- High blood pressure
- Elevated liver values (without impaired liver function)

In the first months of the maintenance therapy, the doctors carry out very differentiated monitoring (follow-up). If side effects occur, it is usually sufficient to reduce the dose. Important: the effect of the therapy is not reduced by this!



If you would like to know more about the various drugs for ovarian cancer therapy, their mode of action, administration as well as therapy plans or side effects, you can also obtain information in the following brochure:

- Prof Dr med. J. Sehouli:  
Drugs for ovarian, fallopian tube and peritoneal cancer: Effects and side effects. Edition 2019, akademos Wissenschaftsverlag

The brochure can be ordered from the German Ovarian Cancer Foundation.

#### How frequently does hair loss occur?

Hair loss only occurs rarely on treatment with Bevacizumab or PARP inhibitors. It is mostly due to the preceding chemotherapy. As a rule, hair loss does not occur during the maintenance therapy itself.

#### How is the success of the maintenance therapy monitored?

In addition to tolerability, disease monitoring is a cornerstone of the duration of a maintenance therapy. Therefore, regular follow-ups of the side effects as well as clinical studies are necessary.

#### What should be done if the maintenance therapy was not effective?

Current studies show that in some of the women with ovarian, fallopian tube or peritoneal cancer a recurrence of the tumour can be prevented over a long period of time. Scientists are strenuously trying to characterise in which women or tumour types this is likely to be the case. No clear prognostic factors exist yet. The good news is that almost every patient can belong to this group.

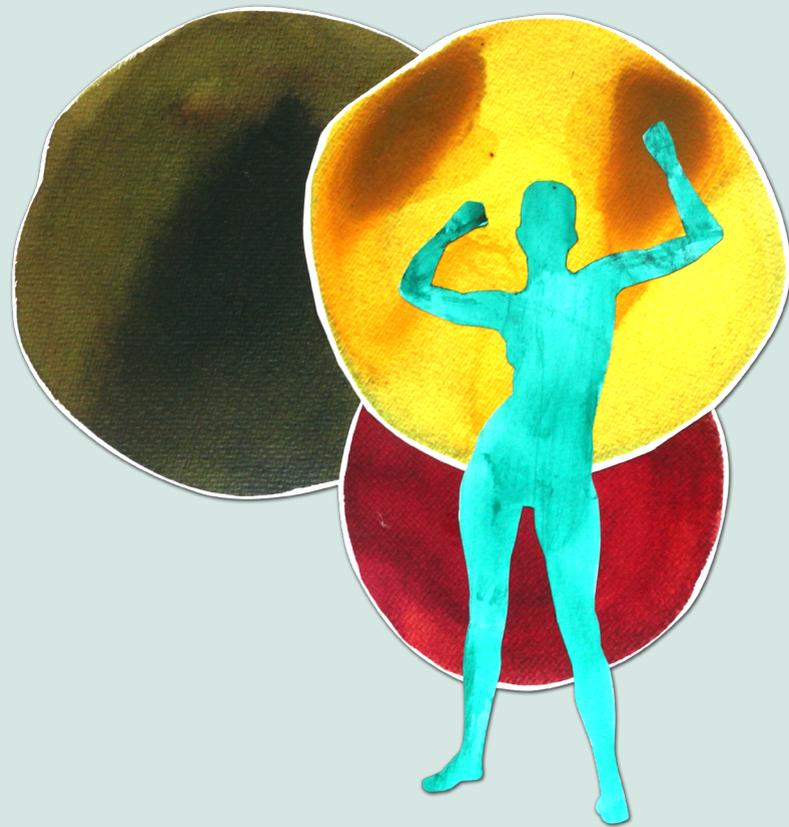
If the tumour comes back despite surgery, chemotherapy and maintenance therapy, the specialists will discuss all further therapy options with you. Even in the case of intensive previous treatment, there are further, in some cases new, treatment possibilities. Please always ask about the chance of participating in studies with new therapy options.

Many factors have a fundamental influence on considerations about which new therapy can be offered to you. The following can be mentioned here:

- Previous treatment
- Interval between the end of the chemotherapy (maintenance therapy) and the recurrence of the disease
- Side effects of the previous therapies
- Current symptoms
- Current state of health
- Kidney function, tissue type, BRCA status

Of course, your opinion and your expectations (preference) also play a major role.

Basically, surgery, even after a performed previous operation, can be a sensible option. Repeated chemotherapy can also be considered. And renewed maintenance therapy can then also be indicated again.



### Writing exercise

For more stability, **vitality**  
and enjoyment of life

*Vitality: You have already overcome  
so many crises.*

*Make yourself aware of how much energy and power  
you have in you by writing out the letters  
of the word “Lebenskraft” (vitality) under each other  
and for each letter put together what comes into  
your head.*

*“L” as in Love, which you have received or given?  
“E” as in Energy that comes from your friends or from  
carrying out creative activities?*

*Look for words or half sentences to express  
what gives you vitality.*

## Managing the maintenance therapy – together with the doctor

### How does maintenance therapy fit into everyday life?

The administration of Bevacizumab into a vein as an outpatient only takes up a small amount of time. There are hardly any time restrictions associated with taking PARP inhibitors. The substances are available in tablet form and are taken at home.

### This is what you can do yourself during the maintenance therapy

#### Taking the drugs

Take the drugs regularly and as prescribed. If at any time you forget to take your medication or have to vomit after taking it you do not need to worry. You do not have to take an additional dose to make up for the missing dose. You can simply go on to the next planned time of taking.

If your doctor has to adjust the medication dose, due to blood count changes, for example, this has no influence on the efficacy of the therapy.

#### Follow-up appointments

Do not forget to attend your follow-up appointments so that your blood values can be regularly checked and side effects reacted to. At each doctor's appointment, also remember to arrange the following appointment straightaway. Also ask your doctor what to do in the event of symptoms, how you can quickly obtain an appointment in an emergency, and how the doctor treating you can best be reached.

So that you can go to your follow-up appointments well prepared and do not forget anything, a treatment diary which you take with you to each appointment may be of help to you. Here you can note down your questions as well as details of symptoms or side effects of the therapy.

#### Patient voices

##### Semra Gabriel, 3rd relapse

*“For me it was initially a little irritating to have to take maintenance therapy in tablet form without a time limitation. That’s now over 4 years ago and I am tolerating the therapy very well.”*

### A healthy and positive lifestyle

Choose a healthy and positive lifestyle. With this you can do a lot for yourself and your well-being during the maintenance therapy. This can also give you the feeling of actively doing something for your health and quality of life and not being “at the mercy” of the disease.

You can find further information here on the topic of sport and exercise with cancer:

[www.dkfz.de](http://www.dkfz.de)

› Menu: Start page › Living with cancer › Everyday life with cancer › Sport and exercise

[www.krebsgesellschaft.de](http://www.krebsgesellschaft.de)

› Menu: Basic information on cancer › Living consciously - preventing cancer › Exercise › Sport with cancer: As important as a medicine

**Information brochure: “Exercise and Sport with Cancer”** – Die Blauen Ratgeber, no. 48, issued by German Cancer Aid

› Download and order at [www.krebshilfe.de](http://www.krebshilfe.de)

### Integrate exercise and sport into your everyday life

Studies have shown that physical activity in the form of sport and exercise has numerous positive effects in cancerous diseases and during cancer therapy.

These include:

- Reducing possible disease or treatment-related stresses or complaints
- Reducing states of exhaustion
- Increasing stamina, performance and mobility
- Support in coping with the disease
- Positive influence on the mind Prevention and/or alleviation of depression

As physical activity can lead to better fitness and resilience and greater confidence in the performance of your own body, this is often associated with the feeling of regaining a piece of “normal” everyday life.

The type and scope of the sport depend both on the individual state of health and also personal preferences. Discuss with your doctor which types of sport are suitable for you during the maintenance therapy and how your personal exercise programme could look.

### Make sure you eat a balanced diet

For many people with cancer, the enjoyment of healthy, tasty meals plays an important role.

And this is for various reasons:

- A diet orientated to individual needs can considerably increase the quality of life.
- Food can improve the general state of health.
- Side effects the therapy can be alleviated: for example digestion disorders, nausea or lack of appetite due to the maintenance therapy.

These aspects are also of relevance during the maintenance therapy. Ask your doctor if you are unsure about anything in relation to diet. Professional nutritional advice can also be helpful

You can find further information here on the topic of nutrition in cancer:

**Information brochure: “Nutrition in cancer”** – Die Blauen Ratgeber, no. 46, issued by German Cancer Aid

› Download and order at [www.krebshilfe.de](http://www.krebshilfe.de)

[www.dkfz.de](http://www.dkfz.de)

› Menu: Start page › Living with cancer › Everyday life with cancer › Nutrition

### Boosting the psyche

In spite of the disease and the long maintenance therapy, try to think of the nice sides of life. Seek out variety and entertainment. A stable social network and talking to relatives and friends can help you to cope with the situation better, particularly in phases when you are not feeling well. Some patients are also helped by talking to others who are affected. Here the various self-help groups can help. You can find addresses on page 27 and at the end of the brochure.

Good experience has also been gained with relaxation techniques. These include autogenic training, Jacobson progressive muscle relaxation or meditation techniques.

Their positive effect can be seen at various levels:

- general well-being and quality of life are improved
- nausea, stress and anxiety can be reduced
- support in the management of pain
- mental stress and depression are alleviated
- awareness of the body is improved
- the ability to concentrate is promoted

If you would like to know more about relaxation techniques you can find information here:

[www.krebsgesellschaft.de](http://www.krebsgesellschaft.de)  
 › Menu: Basic information cancer › Cancer and psyche › Relaxation techniques for cancer patients.

Here you will also find numerous further links and tips.

Anyone requiring psychological help, can contact a psycho-oncologist, for example. He/she can help to overcome anxieties, stresses and other psychological problems.

You can find a contact near to you on the website of the German Cancer Research Centre:

[www.dkfz.de](http://www.dkfz.de)  
 › Menu: Start page › Service › Addresses and links › Psycho-oncology practices



### Book suggestion

#### Vitality through writing - A book of exercises for women with cancer

By: Susanne Diehm, Jutta Michaud and Prof Dr med. Jalid Sehouli, with illustrations by Dr Adak Pirmorady

(Can be ordered from the German Ovarian Cancer Foundation)

### Creative therapies

Many women report that it helps them to express experiences, feelings or wishes in a creative way in order to deal with the disease and the therapy. These include, for example, art therapy, music therapy or writing therapy.

For this, the German Ovarian Cancer Foundation has initiated a number of projects for patients and relatives. Let yourself be inspired at [www.stiftungeierstockkrebs.de](http://www.stiftungeierstockkrebs.de) or [www.schreibtour.info](http://www.schreibtour.info) and find out about the possibilities of participation.

### Where else is help available?

#### German Ovarian Cancer Foundation

The aim of the non-profit foundation is to inform, explain and research. On the website [www.stiftungeierstockkrebs.de](http://www.stiftungeierstockkrebs.de) you can find publications and information material as well as details of projects and events on the topics of ovarian, fallopian tube and peritoneal cancer.

#### DIWA

DIWA is the community for persons affected by ovarian, fallopian tube or peritoneal cancer, their relatives and acquaintances. DIWA brings together endorsers in the fields of medicine, culture and business in order to increase society's awareness of the disease. DIWA stands for strong women. And for "You, I, We, All – Together Against Ovarian Cancer".

#### Self-help groups

In a self-help group, people have the opportunity to talk to others, for example other people affected by ovarian or peritoneal cancer, in a friendly and protected atmosphere. This involves questions both about the disease and also quite personal concerns. The ovarian cancer self-help groups also work together closely with medical partners.

On the website of the German Ovarian Cancer Society – [www.ovarsh.de](http://www.ovarsh.de) – you can find extensive information about ovarian cancer, contact details for the national OverSH self-help groups, events tips and much more.



### Writing exercise

For more stability, vitality  
and enjoyment of life

*Enjoyment of life: Dance into your memories.  
Write out the sentence “I like to remember...”  
five times. The select one of these memories and  
describes it very precisely with all senses as it  
were happening right now: “I hear..”,  
“I see...”, “I feel...”, I taste..”,  
“I smell...” Let the colour of that time determine  
your life now!*

## Appendix

Glossary:  
What does that mean?Explanation  
of important  
specialist terms  
in relation to  
maintenance therapy

<b>A</b>	<b>Adjuvant therapy</b>	Treatment following an operation in which although the tumour was completely removed, it is assumed that further undetectable micro-metastases could be present which should be destroyed by the treatment.
	<b>Alopecia</b>	Hair loss
	<b>Analgesia</b>	Pain relief
	<b>Analgesics</b>	Pain medications
	<b>Anaemia</b>	Low number of red blood cells
	<b>Anamnesis</b>	Medical history
	<b>Antiemetics</b>	Drugs to combat nausea and vomiting
<b>B</b>	<b>Ascites</b>	Abnormal abdominal fluid
	<b>Peritoneum</b>	Fine skin lining the wall of the abdominal and pelvic cavity and covering a large part of the abdominal and pelvic organs
	<b>Biopsy</b>	Removal of a tissue sample for microscopic examination
	<b>Blood transfusion</b>	Transfer of blood from a blood donor to another person by way of intravenous infusion
	<b>BRCA gene</b>	Rare hereditary factor on the basis of which breast and/or ovarian cancer can occur
<b>C</b>	<b>Computed tomography (CT)</b>	Computer-assisted diagnostic procedure that produces images, e.g. cross- and longitudinal sections, using X-rays
<b>D</b>	<b>Diarrhoea</b>	Diarrhoea
	<b>DNA</b>	Deoxyribonucleic acid, the hereditary information of the cells
<b>E</b>	<b>Enzyme</b>	Protein that accelerates chemical reactions in living organisms
	<b>Maintenance therapy</b>	Treatment that is administered for several years or for life after the original treatment and following no longer detectable disease. Its aim is to prevent a recurrence of the cancer.
	<b>Erythrocytes</b>	Red blood cells that are important for supplying oxygen to the tissues
<b>F</b>	<b>Fatigue syndrome</b>	Complex picture of a state of exhaustion
	<b>Remote metastasis</b>	Secondary tumour developing at a distance from the original tumour from a cancer cell that has been carried via body cavities, the blood stream or lymphatic system.
	<b>FIGO classification</b>	Ovarian cancer stage classification by the International Federation of Gynaecology and Obstetrics (FIGO): NB There was a new classification in 2014 that contains some changes to the version of 1998, therefore please ask about it.
<b>G</b>	<b>Womb</b>	Also: uterus; muscular hollow organ in the female lower abdomen for housing the fertilised egg and for the development of the embryo
	<b>Growth</b>	New formation of tissue in the form of excessive growth (see also tumour)
	<b>Grading</b>	In the examination of the fine tissue, among other things, the similarity of the tumour with the original tissue is determined - the more similar, the better the prognosis
	<b>Granulocytes</b>	A form of white blood cells that are important for fighting bacterial inflammations
<b>H</b>	<b>Hb</b>	Abbreviation for haemoglobin, a measure of the number of red blood cells
	<b>High-grade carcinoma</b>	Rapidly growing, very aggressive carcinoma
	<b>Histology</b>	The science of the tissues in the body; in routine clinical practice a microscopic (= fine tissue) examination finding
<b>I</b>	<b>Infusion</b>	Fluid, with or without active substances, usually administered via a vein (blood vessel)
	<b>i. v.</b>	Intravenous, via the vein
<b>K</b>	<b>Cardiotoxic</b>	Side effect affecting the heart
	<b>Clinical study</b>	Clinical studies are used to assess new treatments or their improvement. They are conducted according to strict regulations.
	<b>Creatinine</b>	Excreted form of a muscle metabolism product that provides information about the functioning of the kidneys, which is important for the dosing of certain medications (e.g. carboplatin).
	<b>Curative treatment</b>	Treatment, the objective of which is recovery

<b>L</b>	Laxatives	Drugs for bowel regulation in the event of constipation
	Guidelines	Description of the standard therapy for diseases based on current knowledge
	Leukocytes	White blood cells, important for immune defence
	Low-grade carcinoma	Slowly growing, not very aggressive carcinoma
<b>M</b>	Magnetic resonance imaging (MRI)	Computer-assisted imaging procedure based on the principle of magnetic resonance. The examination is similar to computed tomography (see above), but works without X-rays.
	Malignant tumour	Pernicious growth, cancer
	Malignancy	Malignant tumour (see above)
	Mammography	X-ray examination of the breast; effective preventative and early detection method for malignant tumours
	Metastasis	Also: secondary growth; spreading of cells of the original, primary tumour into the lymphatic system or certain organs via blood vessels or body cavities; remote spreading of a malignant tumour
	<b>N</b>	Nausea
	Side effect	Undesired secondary effect of a treatment which may, but does not necessarily occur
	Neoplasm	Malignant or benign new formation of tissue
	Nephrotoxic	Harmful to the kidneys
	Neuropathy	Discomfort such as tingling and stabbing sensations, feeling of numbness in hands and feet (paraesthesia)
<b>O</b>	Constipation	Constipation
	Ototoxic	Damaging to the ear
	Ovary	Ovary
	Ovarian carcinoma	Ovarian cancer
<b>P</b>	Paclitaxel	Cytostatic anti-cancer drug. Active substance obtained from the European yew and successfully used in the treatment of ovarian, breast and lung cancer.
	Palliative therapy	Measures which do not prolong life, but alleviate the symptoms
	PARP	Poly-ADP-ribose polymerase enzyme group. The effects of PARP inhibitors are based on the inhibition of the PARP enzymes which are involved in the DNA repairing of cancer cells, which repairs the damage caused to cancer cells by the chemotherapy.
	Peritoneum	See peritoneum
	Positron emission tomography (PET)	Nuclear medicine examination which images the places with increased metabolism and can indicate metastases.
	Physical	Bodily
	Platinum derivatives	Certain anti-cancer drugs which contain the noble metal platinum (e.g. Carboplatin and Cisplatin)
	Platinum refractory	If a tumour continues to grow during a platinum-based chemotherapy, it is known as
	platinum refractory carcinoma.	klinisches Ansprechen auf eine platinhaltige Chemotherapie (siehe auch Rezidiv)
	Platinum resistance	If patients with cancer do not respond to a platinum-based chemotherapy, this is known as platinum resistance (see also Relapse).
	Platinum sensitive	Clinical response to a platinum-based chemotherapy (see also Relapse)
	Pleura	Lung membrane (envelops the lungs)
	Pleural effusion	Fluid accumulation in the area of the pleura
	Polyneuropathy	Sensitivity disorder caused by chemotherapy (e.g. with the drug Paclitaxel, which is obtained from the yew tree) but also by other disease (e.g. diabetes mellitus) which can be particularly pronounced on the feet and hands.
Port	Venous catheter connected to a plastic chamber which is placed under the skin; this can be used for repeated injections, e.g. for infusions.	
Progression-free survival time	Time from the start of a clinical study to progression of the disease or death	
Prophylaxis	Prevention	

<b>R</b>	<b>Reduction</b>	Decrease, diminishment		
	<b>Regional lymph node</b>	Lymph node belonging to a particular part of the body. In ovarian cancer these are the lymph nodes in the pelvis and on the aorta.		
	<b>Remission</b>	Response to a therapy		
	<b>Resection</b>	Surgical removal		
	<b>Response</b>	Evaluation of the efficacy of a therapy		
	<b>Reversible</b>	Can be turned round, restorable		
<b>S</b>	<b>Relapse</b>	Recurrence of a disease. In platinum-based chemotherapy, a relapse is said to have occurred if the tumour recurs after a minimum time interval of 6 months following the completion of the therapy (during which the cancer did not grow).		
	<b>Sonogram</b>	Ultrasound examination (investigation method which by means of sound waves higher than those audible to humans shows body structures of different density.		
	<b>Sonography</b>	Ultrasound		
	<b>Staging</b>	Classification of tumours into different stages on the basis of their size and spread. The therapy is dependent on the stage of the cancer.		
	<b>Standard therapy</b>	Treatment with the best prospect of success as at the present time it has been demonstrated to be the most effective and tolerable on the basis of previous studies.		
	<b>Stomatitis</b>	Inflammation of the oral mucous membrane		
	<b>Study</b>	Scientific investigation		
	<b>Sub-ileus</b>	Preliminary stage of an ileus (see above), i.e. the bowel is not fully obstructed. Sub-ileus is mainly characterised by nausea, vomiting and constipation.		
	<b>Supportives</b>	Drugs that have a supporting or preventative effect (e.g. to counter nausea or anaemia)		
	<b>Supportive therapy</b>	Supportive measures which the patient requires in addition to targeted tumour therapy; prevention and treatment of side effects, treatment of tumour-related symptoms, complaints and disorders		
		<b>Symptom</b>	Sign of disease	
	<b>Systemic</b>	In the broad sense relating to the entire body		
<b>T</b>	<b>Thorax</b>	Chest		
	<b>Thrombopenia</b>	Reduction in blood platelets (thrombocytes)		
			<b>Thrombocytes</b>	Blood platelets, important for blood coagulation
			<b>Transfusion</b>	Transfer of blood products (e.g. red blood cells) in the event of severe deficiency (anaemia) or major blood loss
			<b>Tube</b>	Fallopian tube
			<b>Tumour</b>	Swelling, growth, new formation of tissue. A tumour can be malignant or benign.
			<b>Tumour marker</b>	Name for blood values, the determination of which may allow assertions to be made about the tumour in relation to its response to an anti-cancer therapy (e.g. CA-125). However, the tumour marker alone should not form the basis of a therapy!
			<b>Tumour stages</b>	The extent of a tumour at the time of diagnosis is classified into so-called stages
			<b>U</b>	
			<b>Ureter</b>	Urinary tube
			<b>Uterus</b>	Womb (see above)
			<b>V</b>	
			<b>Vagina</b>	Vagina
			<b>Vaginal</b>	Via the vagina (e.g. in the ultrasound examination)
			<b>Vaginal sonography</b>	Ultrasound examination via the vagina
			<b>Z</b>	
			<b>Targeted therapy</b>	Specifically only works against a certain structure (e.g. antibodies like Bevacizumab)
			<b>Diaphragm</b>	Muscle tissue layer between the abdominal and thoracic cavity
			<b>Cyst</b>	Cavity filled with fluid
			<b>Cystitis</b>	Bladder inflammation
			<b>Cystoscopy</b>	Bladder scan
			<b>Cytostatics</b>	Cell-killing drugs which inhibit growth and act on rapidly dividing cells

## Learn more!

### Would you like to find out more about ovarian, fallopian tube and peritoneal cancer or about maintenance therapy?

You can find further information here:

- Information leaflets, magazines, books, calendars, therapy companions and much more are available at the website of the German Ovarian Cancer Foundation:  
**[www.stiftung-eierstockkrebs.de/infomaterial](http://www.stiftung-eierstockkrebs.de/infomaterial)**
- Videos, e.g. explanatory films and animations or interviews with patients and experts can be viewed on the foundation's YouTube channel: **[www.youtube.com](http://www.youtube.com)** ▶ search term: "German Ovarian Cancer Foundation Berlin" → Recommendations:
  - Animations: Information clip about ovarian cancer part 1 + 2
  - A relapse occurs: What are the therapy options now for ovarian cancer?
  - ASCO News for ovarian cancer patients by Prof. Jalid Sehoul
  - Also: Interviews and discussions, for example with Ms Lakotta-Just, Ms Vinzent, Ms Gabriel
- Information about the therapy is also available to read in the ovarian cancer patient guideline:  
**[www.leitlinienprogramm-onkologie.de](http://www.leitlinienprogramm-onkologie.de)** ▶ Menu: Patient guidelines ▶ Ovarian cancer
- You can obtain information about current studies and the possibilities of participation at  
**[www.studienportal-eierstockkrebs.de](http://www.studienportal-eierstockkrebs.de)**
- The magazine "Die zweite Stimme" is available on the foundation's website:  
**[www.stiftung-eierstockkrebs.de](http://www.stiftung-eierstockkrebs.de)** ▶ Menu: Infomaterial ▶ Patient magazine
- If you would like to know more about the various drugs for ovarian cancer therapy, their mode of action, administration as well as therapy plans or side effects, you can also obtain information in the following brochure:  
**Prof Dr med. Jalid Sehoul: Medications for ovarian, fallopian tube and peritoneal cancer: Effects and side effects. Edition 2019, akademos Wissenschaftsverlag** (The brochure can be ordered from the German Ovarian Cancer Foundation.)



deutsche stiftung eierstockkrebs  
german ovarian cancer foundation

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