

Chemotherapy



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1. Chemotherapy in general

How does chemotherapy work

Chemotherapy mainly works on cancer cells that divide quickly. After the drugs have been administered to you, your blood distributes them throughout your body. This means chemotherapy can reach cancer cells almost anywhere in the body.

Targeted chemotherapy

Sometimes you will be given different types of medication. This is called combination therapy.

Chemotherapy can also be given in combination with other treatments, for example with targeted therapy and/or radiation.

You can be given chemotherapy as a curative, complementary or palliative treatment. Your doctor will discuss the purpose for which he/she proposes chemotherapy treatment with you.

Curative treatment

Some cancers respond well to chemotherapy. Treatment is then focused on curing. This is called curative treatment. The goal is to destroy all malignant cells.

Complementary treatment

Chemotherapy can be a complementary treatment that you receive after another treatment, for example after surgery. This is called an adjuvant treatment. Adjuvant means additional. The goal is:

- to destroy any remaining cancer cells after surgery
- destroy very small, invisible metastases

You can also have chemotherapy before surgery. This is called a neoadjuvant treatment.

The goal is:

- To shrink the tumour. This makes it easier for the surgeon to remove the tumour and means less radical surgery is possible.
- Destroy very small, invisible metastases

Palliative treatment

If your cancer is no longer curable, you may be given palliative chemotherapy. This treatment is aimed at slowing down the disease and lessening or preventing symptoms. Palliative treatment might focus on pain relief for example so that quality of life is improved.

Results

Cancer cells respond differently to chemotherapy. Usually the doctor checks after two or three chemotherapy sessions if the treatment is effective. The best news is that the chemotherapy is shrinking the tumour. The disease may also have stopped or be progressing less quickly. But it is also possible that chemotherapy is not working. In that case, the doctor will discuss other options with you. He or she may suggest a different kind of chemotherapy or advise stopping the treatment.

Stopping treatment

Treatment can be tough. If you have any doubts about the point of treatment or further treatment then please discuss this with your specialist. Everyone has the right to refrain from treatment or further treatment. Your doctor will always continue to provide you with medical care and guidance. He/she will endeavour to lessen the unpleasant consequences of your illness as much as possible.

2. Preparation

Some preparation is necessary before starting chemotherapy:

- You will have an informational meeting about the treatment
- The doctor checks your blood
- The doctor must know whether and which medication you are taking (take a list of your medication to the appointments)
- Sometimes you need additional medication as supportive treatment, for example for nausea
- Sometimes your teeth need to be checked

Blood test

For each subsequent chemotherapy session, the doctor will always check your blood values first. A small amount of blood will be taken. The doctor will determine whether your blood values are high enough to handle the next session. If your blood has not recovered enough yet and the blood values are too low then it can sometimes be necessary to postpone the next chemotherapy session for a few days or longer. Sometimes the doctor can lower the dose of the medication, so delay is not necessary.

Dental check-up

Some types of chemotherapy damage the membranes of the mouth. Other types of chemotherapy can make dental problems worse. You may develop problems in your mouth or with your teeth during treatment such as irritation, pain, damage and inflammation. Have your teeth checked by a dentist or dental hygienist and treated if necessary before chemotherapy. It is important that your teeth are in good condition and that you see your dentist regularly. Your doctor or nurse can also advise you on oral care.

3. How is chemotherapy administered

You can be administered chemotherapy in several ways:

- Orally: tablets or capsules
- Under the skin or in a muscle: by injection
- Directly into a blood vessel: by injection or intravenous drip
- Through the skin: cream
- In the spinal cord: by injection
- In a body cavity: via a catheter (flexible tube), for example a bladder flush

Course of chemotherapy

Chemotherapy is usually given as a course. This means that you will be administered medication for a certain period and then take a break for a certain period. For example, you will be administered medication for a few days or a week and then have a three week break. You will usually be given this kind of chemotherapy course a few times consecutively.

The administration of the medication might take five minutes or might take a few days. This differs per type of chemotherapy. Sometimes you can have chemotherapy as a hospital outpatient. In some cases you may have to be admitted to hospital for a longer period of time. If you take tablets or capsules, you can take them at home.

Duration of treatment

How long the treatment lasts depends on:

- The goal of the chemotherapy
- The medication schedule
- The dosage of the drugs
- The kind of drugs
- The result of the treatment
- How bad possible side effects are

Chemotherapy in combination with other treatments

Chemotherapy can be combined with other treatments, such as:

- Radiation
- Targeted Therapy
- Immunotherapy
- Hormonal Therapy
- Adrenal cortex hormones
- Hyperthermia (heat treatment)

Chemotherapy with radiation

You may be given chemotherapy in combination with radiation therapy. This is called chemoradiation. The chemotherapy makes the cancer cells extra sensitive to the radiation. For example, you will receive chemoradiation if the tumour is too large to be removed surgically.

Chemotherapy with targeted therapy

Targeted therapy is a treatment with drugs that inhibit the cell division of cancer cells or kill cancer cells. This treatment causes less damage to healthy cells than chemotherapy for example.



Chemotherapy with immunotherapy

For some cancers, you may be given chemotherapy combined with immunotherapy. This treatment strengthens or changes your own immune system so that it can kill cancer cells better.

Chemotherapy with hormonal therapy

Hormonal therapy is the treatment of cancer with hormones. You will be given medication that reduces the effect of hormones. This treatment is only useful for hormone-sensitive tumours. These are tumours in the breasts, prostate, ovaries and pituitary gland (a small gland situated at the base of the brain).

Chemotherapy with adrenal cortex hormones

Sometimes you will be given chemotherapy treatment with adrenal cortex hormones. Hormones of the adrenal cortex are also called corticosteroids. Common medications are prednisone and dexamethasone. Adrenal cortex hormones suppress inflammation and the immune system.

4. Side effects

Chemotherapy not only affects cancer cells, but also healthy cells in the body. Healthy cells that grow quickly can respond to chemotherapy in particular. Healthy cells have time to recover during the chemotherapy rest periods. Most healthy cells do, meaning side effects disappear. Sometimes this happens after a few days, sometimes it takes longer.

The side effects you might have depend on:

- Type of chemotherapy
- Combination with other cytostatica
- Dosage
- Method of administration
- Duration of treatment
- Combination with other medication and/or treatments
- Your physical condition

It is impossible to predict how you will respond to chemotherapy. Your doctor or nurse will tell you what side effects you can expect. They can advise you on how to deal with this. It is important that you discuss all your complaints with your doctor. There may be some way or means of counteracting the side effects. Sometimes the doctor adjusts the amount of cytostatica (temporarily) or postpones administration for one or two weeks.



Common side effects

Chemotherapy may cause the following side effects:

- Anaemia
- Bleeding
- Diarrhoea
- Hair loss
- Infections
- Menstrual disorders
- Nausea and vomiting
- Mouth problems
- Changes in sense of smell and taste leading to loss of appetite
- Reduced fitness
- Fatigue
- Constipation



5. Effects

Chemotherapy can have harmful long-term effects.

Some common long-term effects are:

- Bone decalcification
- Loss of concentration and memory problems
- Hearing damage
- Heart damage from certain cytostatica
- Menstrual disorders
- Tingling and numbness in the fingers and/or toes: neuropathy
- Kidney damage due to certain cytostatica
- Sexual disorders
- Impaired fertility or infertility
- Fatigue
- Early menopause

Your doctor or nurse will tell you about the long-term effects of the cytostatica you are being treated with. They can advise you on how to deal with this.

6. Medication use

A number of medications can interact with chemotherapy meaning the effect of one or both medications is reduced or even enhanced or makes the side effects worse. Examples include sleeping pills, antacids, antidepressants and blood thinners.

The drugs can also interact with supportive medication, such as anti-nausea medication.

This also applies to OTC products that you buy at the chemist. Tell other practitioners outside the hospital that you are being treated with chemotherapy. Also your dentist and dental hygienist. They can then take this into account during treatment.

Vitamins, herbs and nutritional supplements

If you are using other products then do not forget to tell your doctor. For example:

- Vitamin pills
- Alternative medicines
- Dietary supplements
- Herbs
- Homeopathic remedies



Preferably no fish oil and fatty fish

If you are having chemotherapy then doctors advise not using dietary supplements with fish oil on the days around the treatment. Do not eat fatty fish, such as herring or mackerel on these days either. Research has shown that these products can interact with chemotherapy and reduce the effectiveness of chemotherapy.

Questions

If you have any questions about the Chemotherapy brochure, you can contact the oncology nurse on workdays during office hours on telephone number: 7800493.

For further detailed information about chemotherapy see **www.kwf.nl**