



## CHEMOTHERAPY

***This information sheet is for your general information and is not a substitute for medical advice. You should contact your doctor or other healthcare provider with any questions about your health, treatment or care.***

### **What is chemotherapy?**

Chemotherapy is a treatment of cancer by means of chemicals that kill cancer cells. These 'anti-cancer' medications destroy cancer cells by stopping their growth and reproduction. Unfortunately, normal, healthy cells are also affected and this causes the well-known side effects of chemotherapy. The normal, healthy cells have an organised cell structure and repair mechanisms in place. This results in them being able to reproduce new, normal tissue after chemotherapy.

There are many chemotherapy drugs that are used to treat cancer. Often, two or more medications are given. This is called combination chemotherapy and forms the basis of most chemotherapy treatments today. The reasoning is that the different drugs enhance each other's effect and create a better effect combined than if they are used alone. Different chemotherapy drugs are chosen so that they do not have the same side effects on tissue.

Chemotherapy may have different goals to:

- cure cancer
- control the growth of cancer
- kill cancer cells that may spread to other parts of the body
- alleviate side effects such as pain caused by cancer.

Chemotherapy may be used as a single method of treatment, but is also commonly used in combination with surgery, radiotherapy and biological treatment in order to:

- shrink a tumour before radiotherapy or surgery, this is called neo-adjuvant therapy
- destroy any remaining cancer cells after surgery or radiotherapy, this is called adjuvant therapy
- enhance the effect of radiotherapy and biological therapy
- destroy recurring cancer or destroy cancer that has spread to other parts of the body.

### **How will your chemotherapy plan be decided upon?**

Each treatment plan is tailor-made to suit every individual and will depend on:

- the type of cancer
- the area of the body where the cancer is
- the stage of development of the cancer, e.g. how big the tumour is in the affected organ or if it has spread to the rest of the body
- how the cancer influences the functioning of the body
- general health
- the purpose of the treatment – either to cure or to relieve symptoms.

### **How is chemotherapy administered?**

Chemotherapy may be administered in different ways, namely intravenously (into the vein), orally (in tablet form), or by way of an injection under the skin or into the muscle, and also into the spinal cord to treat the spinal fluid. In some cases, it may be applied to the skin.

### *Intravenous administering of treatment*

This is the most common method of administering treatment. A thin needle is inserted into a vein on the hand or lower arm. This needle is removed once the chemotherapy has been completed. Chemotherapy may also be administered intravenously by means of catheters, ports or pumps. A catheter is a tube placed in the vein. A port is a round plastic or metal chamber that is placed under the skin. It is connected via a thin tube to one of the major vessels in the chest cavity. This method is more permanent and can be used for as long as necessary. A pump is attached to the catheter and delivers a pre-set amount of the medication.

### *Oral administering of treatment*

The chemotherapy is administered in the form of a pill, liquid or capsule – all of which can be absorbed in or by the stomach or under the tongue. Since oral chemotherapy is self-administered, it is important to:

- follow the safety instructions when handling the drug and discarding of packaging
- keep the chemotherapy away from others, children and pets in your home
- take the chemotherapy exactly as prescribed by your doctor.

### *Injection*

A needle and syringe delivers the chemotherapy drug either intramuscularly (into the muscle) or subcutaneously (below the skin).

Most patients receive chemotherapy as outpatients in the oncology unit and do not need to be admitted to hospital. Sometimes, hospital admission may be necessary for certain chemotherapy treatments.

### **How often is the chemotherapy given and how long does it take?**

This is decided by:

- the type of cancer
- the goal of the treatment – either to cure or relieve symptoms
- the different chemotherapy drugs
- how your body copes with the chemotherapy.

Chemotherapy may be administered daily, weekly or monthly. It is given in cycles where treatment is alternated with rest periods. It is important to keep to the chemotherapy schedule in order to get the best results. Your doctor may decide to postpone your treatment if the blood test results are not satisfactory or side effects are severe.

### **Does chemotherapy hurt?**

A little pain is expected when a needle is used to administer the chemotherapy, but pain from the drugs are not expected. If you experience pain, burning sensation, coolness or anything new when receiving chemotherapy, tell your nurse immediately.

### **Can I take other medication while undergoing chemotherapy?**

Some medication may interfere with, or affect, your chemotherapy treatment. Please give your oncologist a list of the medication you are taking before starting chemotherapy. This includes over-the-counter medication, e.g. vitamins, allergy pills, contraceptive, indigestion aids, pills for colds and flu, aspirin, painkillers and any minerals or herbal supplements.

### **How will I know if the chemotherapy is working?**

When necessary, you will be sent for examinations and tests that will help your oncologist determine how effective the treatment has been. Please ask your oncologist to explain these tests to you.

**What can I do to take care of myself while undergoing chemotherapy?**

- Get plenty of rest. Chemotherapy may make you feel more tired than normal, this can last several weeks or months following treatment.
- Follow a healthy diet, as it is important for your body to get enough calories and protein.
- Get some exercise, if approved by your doctor. Exercise can improve tiredness and decrease stress.
- Discuss alcohol intake with your doctor, as it can cause problems with chemotherapy drugs
- Discuss all medications you are taking with your doctor, including vitamins and herbal supplements
- Discuss any concerns or health problems that may arise with your treating doctor or chemotherapy nurse.

Your treating doctor and chemotherapy nurse will provide extra tips on how to care for yourself during chemotherapy.

**Important questions to ask about chemotherapy**

Prior to your appointment with the oncologist, prepare the questions you would like to ask. Here are a number of suggestions:

- Why should I receive chemotherapy?
- What are the benefits of chemotherapy?
- What are the associated risks of chemotherapy?
- Are there any other methods of treatment available for my specific cancer?
- What are the standards of treatment for my type of cancer?
- Are there any ongoing clinical trials for my type of cancer?

Ask these questions about your treatment schedule:

- How many chemotherapy treatments must I get?
- Which chemotherapy drugs or agents will I receive?
- How will the chemotherapy be administered?
- Where will the chemotherapy be given?
- How long will each chemotherapy treatment take?

Ask these questions about the side effects of chemotherapy:

- What are the possible side effects of chemotherapy?
- When will the side effects start?
- What side effects usually occur with my type of cancer?
- Are there any side effects that need to be reported immediately?
- What can I do to minimise the side effects?

**Clinical trials**

Treatment studies or research studies involve people and are conducted under controlled conditions. Clinical trials could include testing of:

- the effectiveness of new treatments
- new ways of using current treatments
- new interventions that may decrease the risk of developing certain types of cancers
- new ways of screening for cancer.

The purpose of this research is to find better methods of treatment or detection of cancer and ways to lower risk of developing cancer. You might be chosen to take part in one of these clinical trials. If this should happen, you will be given all of the relevant information. Please discuss any doubts or fears with your oncologist.

All patients with a diagnosis of cancer should be registered on their medical scheme's oncology programme.

**References**

1. AMERICAN CANCER SOCIETY. Website. <https://www.cancer.org/>.
2. CANCER ASSOCIATION OF SOUTH AFRICA (CANSa). Website. <http://www.cansa.org.za>.

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