

## CHEMOTHERAPY

***This sheet is for your information and is not a substitute for medical advice. The specifics of your condition and treatment should be discussed with your oncologist to establish the optimal treatment plan for you as an individual.***

### **What is chemotherapy?**

Chemotherapy is a treatment of cancer by means of chemicals that kill cancer cells. These 'anti-cancer' medication 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.

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
- to control the growth of cancer
- to alleviate symptoms such as pain caused by cancer – palliation.

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 relieve symptoms.

### **Clinical trials**

Treatment or research studies are conducted to test new treatment regimes. These could include new drugs, new approaches to surgery or radiotherapy, or new treatments such as gene therapy (which is a type of experimental treatment where genetic material is used in a person's cells to try and fight the disease). The purpose of this research is to find better methods of treatment for cancer patients. 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.

### **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 a 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 preset amount of the medication into the bloodstream.

### *Oral administering of treatment*

The chemotherapy is administered in the form of a pill or capsule.

### *Injection*

A needle and syringe delivers the chemotherapy drug either intramuscularly (into the muscle) or subcutaneously (below the skin). Most patients receive chemotherapy as out-patients in the oncology unit and do not need to be admitted to hospital. Sometimes it might be necessary for hospital admission 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 tests or side effects are not satisfactory.

### **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, pain killers 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.

### **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?

### **References**

GVI Oncology (South Africa). Website: <http://www.cancercare.co.za>