

FREQUENTLY ASKED QUESTIONS RELATING TO CHILDHOOD CANCERS

September is Childhood Cancer Awareness Month, and in recognition the South African National Cancer Registry (NCR), a division of the National Health Laboratory Service, is focusing on cancers that affect children. Although childhood cancers are very rare, the incidence rate is increasing globally and each year between 800 and 1,000 children are diagnosed with cancer in South Africa.

The five most common childhood cancers in South Africa include lymphomas, brain and spinal cord tumours, nephroblastoma (or Wilms tumours) and soft tissue sarcomas, with leukemia classified the most prevalent among the youth. It is estimated that less than half of children with cancer in South Africa are diagnosed, with the majority of cases only diagnosed during the advanced stages of the illness. This is partly due to a lack of awareness regarding the early warning signs of childhood cancer.

Parents, guardians and health workers are encouraged to familiarise themselves with the St Siluan warning signs, as childhood cancers can often go undetected due to the symptoms and signs being similar to that of other illnesses.

For more information on St Siluan, and childhood cancer in general, see the following frequently asked questions:

WHAT ARE COMMON CHILDHOOD CANCERS IN SOUTH AFRICA?

Leukaemia, lymphoma, brain cancer and spinal cord tumours, cancer of the kidneys (Wilms Tumour) and soft tissue sarcomas are the commonest cancers in children in South Africa.

WHAT IS THE MOST PREVALENT CHILDHOOD CANCER IN SOUTH AFRICA, AND WHAT ARE THE SYMPTOMS?

Leukaemia is a very common cancer in South Africa. It develops in the body's blood forming tissues. Symptoms to watch out for include fatigue, weakness, bleeding, fever, pale skin, bone and joint pain, weight-loss, and swelling of the abdomen and lymph nodes.

WHAT TREATMENT OPTIONS ARE AVAILABLE FOR LEUKAEMIA?

Treatment consists of an intensive phase of chemotherapy lasting six or nine months, followed by less intensive therapy called maintenance, which lasts two to three years. Cure rates depend on the type / subtype of Leukaemia and range from 40 – 90%.

Each type of Leukaemia is treated with a different combination of chemotherapy drugs called a protocol. The Protocol consists of different phases or blocks of treatment. Drugs most used are:

- ALL - Vincristine, Steroids (Prednisone, dexamethasone), Daunorubicin/ doxorubicin, Cyclophosphamide, Methotrexate, Cytarabine, 6- Mercaptopurine and Thioguanine.
- AML – Cytarabine, Daunorubicin, Etoposide, Thioguanine, Mitoxantrone, Idarubicin, ATRA

Information courtesy of Childhood Cancer Foundation South Africa (CHOC)



GENERALLY, WHAT TREATMENT OPTIONS ARE AVAILABLE TO TREAT CHILDHOOD CANCER?

A paediatric oncologist specialises in the diagnosis and treatment of childhood cancers, which is a highly specialised service. A multidisciplinary team headed by a paediatric oncologist should look after the child. Paediatric oncology only uses evidence based and medically approved treatment, coupled with international tried and tested protocols.

A treatment plan which may include multiple drugs, surgery and possible radiotherapy is referred to as a protocol. Protocols are developed as a result of clinical trials in high income countries, leading to the best standard of care. Protocols are specific for each type of cancer; therefore, each child will be given a different combination of chemotherapy drugs, with surgery and radiotherapy as required.

The major portion of the child's treatment will take place in the hospital. The treatment plan (protocol) will be explained in more detail by the doctor. Treatment begins with a specific and accurate diagnosis, by doing various tests and examinations. These may vary according to the type of cancer. Tests are done on all children to make sure that the child's major organs (heart, lungs and kidneys, etc.) are healthy. *Information courtesy of Childhood Cancer Foundation South Africa (CHOC)*

HAVE ANY ADVANCES BEEN MADE IN TREATING CHILDHOOD CANCER?

The answer is yes, according to the Childhood Cancer Foundation South Africa (CHOC). Especially in the early detection of cancer through raising awareness.

Other advances include:

- Children are treated in Specialised Treatment Centres by Sub Specialists, namely Paediatric Oncologists, Paediatric Surgeons Paediatric Neurosurgeons, and a multi-disciplinary team.
- Multimodal Therapies are applied including Chemotherapy, Radiation, Surgery –bone marrow / stem cell transplants.
- Improvements in Supportive Care and ICU facilities
- Improved antibiotics and anti-emetics and central Venous Lines (Hickman lines / Ports)
- Improved Blood Products by South African National Blood Services (SANBS)
- Following international, multi-centre trial protocols.

WHAT DO THE DIFFERENT STAGES OF CANCER MEAN?

'Stage' is a measure of the extent of the disease at diagnosis. Cancers are generally staged from Stage 1 to Stage 4. Stage 1 is when the cancer is detected very early. This generally means that the cancer has a good prognosis. Stage 4 is advanced disease, but treatment can still be given.

CAN CHILDHOOD CANCER BE PREVENTED?

It's important to note that childhood cancers cannot be prevented. It results from an abnormal mutation in cells. It is not strongly linked to environmental or lifestyle factors. Some chronic infections like Epstein Barr Virus and HIV are risk factors for childhood cancers. Looking out for the St Siluan early warning signs will mean that the cancer is diagnosed early and has a better prognosis





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The St SILUAN signs are important early warning signs of childhood cancer that every parent, guardian and healthcare worker should look out for. St Siluan stands for:

S- Seek help for persistent symptoms

I – Eye, white spot in the eye, bulging eyeball or new squint

L – Lump in the glands or abdomen, testes or head

U – Unexplained fever, weight loss, easy bruising or bleeding

A – Aching bones and joints

N – Neurological signs, for instance balance, change in walk or speech, and an enlarged head

IF IT CANNOT BE PREVENTED, ARE SCREENINGS NECESSARY, AT WHAT POINT AND HOW OFTEN?

There are no widely recommended screening tests to detect childhood cancer and no recommended scheduling for check-ups. That is why we rely on the St Siluan early warning signs to detect cancer early on, and to start treatment early.

WHAT ARE THE RISK FACTORS FOR DEVELOPING CHILDHOOD CANCER?

There are no lifestyle or environmental factors that are strongly linked to childhood cancer. This means that there is no way to prevent childhood cancer. It is recommended to be on the lookout for chronic infections, for instance Epstein Barr Virus and HIV, that may be linked to developing childhood cancer. If a child is HIV positive, early antiretroviral therapy may assist in preventing childhood cancer.

ARE CANCERS IN CHILDREN ON THE RISE? IF YES, WHAT COULD BE THE POSSIBLE CAUSES?

Currently we see about 800 to 1000 new cases of cancer every year in South Africa. But we know that about half of the children with childhood cancers go undiagnosed. That is why it is important to take note of the St Siluan early warning signs of childhood cancer, in order for it to be detected and treated early.

WHAT SHOULD A PERSON LOOK OUT FOR IN CHILDREN AND AT WHAT AGE TO START FROM? OR ARE CHILDREN BORN WITH CANCER?

Children are not always born with a childhood cancer. It can result from an abnormal growth of cells in the body. Children can develop childhood cancer at any age. That is why it is important to look out for the early warning signs of childhood cancer through the St Siluan signs.

ARE THERE ANY CLINICAL TRIALS FOR TREATMENT OF CHILDHOOD CANCERS IN SOUTH AFRICA?

A 2020 study by Van Heerden et al showed that African children had limited access to clinical trials. It found that only 12.1% of African oncology trials included children. While South Africa has a higher number of trials open to children, than the rest of Africa, it is still insufficient to ensure novel therapy access for South African children.





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DOES FOOD / DIET PLAY A ROLE IN CANCERS?

There are no strong links to environmental or lifestyle factors associated with childhood cancers. And there is no evidence that diet plays a role in the development of childhood cancers.

END

