

## **CHILD CANCER**

INVESTIGACIÓN EPIDEMIOLÓGICA AVANZADA

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## **INTRODUCTION:**

In many countries, cancer is the second cause of death in children over one year of age, surpassed only by accidents.

Fortunately, in recent years there have been very important advances in the treatment of childhood cancer. An example is acute leukemia, a disease that until 30 years ago was considered inevitably fatal. At present, being the most frequent type of cancer in childhood, it has a 5-year survival of more than 70%, which implies that most patients can be definitively cured.

Similar progress has also been made in the treatment of solid tumors, since the combined methods of radiotherapy, surgery, and chemotherapy have been used, which have significantly increased long-term survival in childhood tumors.



## ¿What is Childhood Cancer?

Cancer is one of the main causes of mortality among children and adolescents throughout the world; each year approximately 280,000 children between the ages of 0 and 19 are diagnosed with cancer.

> In Latin America and the Caribbean, it is estimated that at least 29,000 children and adolescents under the age of 19 will be affected by cancer each year. Of these, about 10,000 will die from this disease.



Childhood cancer comprises many different types of tumors that develop in this population group. The most common types are leukemia, brain cancer, lymphoma, and solid tumors such as neuroblastoma and Wilms tumor.

In general, in childhood cancer there is no primary prevention or detection through screening

In high-income countries, more than 80% of children affected by cancer are cured, but in many low- and middle-income countries the cure rate is about 20%.

Preventable deaths due to childhood cancers in lowand middle-income countries occur as a result of nondiagnosis, incorrect or late diagnosis, difficulties accessing health care, neglect of treatment, death from toxicity and the highest recurrence rates.





The impact of childhood cancer translates into years of life lost, greater inequalities and economic difficulties

## WHO global initiative against childhood cancer

In September 2018, at an inaugural side event on childhood cancer at the United Nations General Assembly, WHO announced a new effort: the WHO Global Initiative on Childhood Cancer.

Their goal is to achieve a survival rate of at least 60% for children with cancer by the year 2030, reducing suffering and saving an additional one million lives. This is accomplished by concerted efforts at global, regional and country levels, with implementation supported by a WHO technical package of strategic interventions.



## PRIORITIZED CANCER TYPES

The Global Initiative Against Childhood Cancer focuses on six cancers:

1.- Leucemia linfoblástica aguda



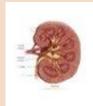
#### 2.- Linfoma de Hodgkin



3.- Retinoblastoma



### 4.- Tumor de Wilms



5.- Linfoma de Burkitt



#### 6.- Glioma de bajo grado



## CAUSES OF CHILDHOOD CANCERS

The causes of most childhood cancers are not known.

About five percent of all cancers in children are caused by an inherited mutation (a genetic mutation that can be passed from parent to child).

## **RISK FACTOR'S**:

#### Genetics:

Down syndrome (trisomy 21) Li-Fraumeni syndrome, Inherited immune system problems Brothers or sisters with leukemia

Related to lifestyles

**Environmental risks** 



### **SIGNS AND SYMPTOMS:**

- white spot in the eye
- New-onset squint
- visual loss
- Bruising or swelling around the eyes Pallor
- bruising or bleeding
- Dizziness
- Loss of balance or coordination



## DIAGNÓSTICO:

LOS MAS COMUNES:

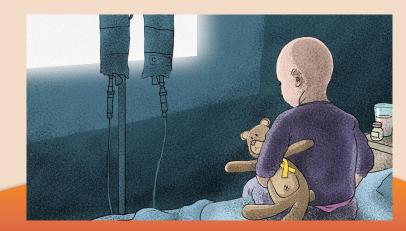


- análisis de sangre
- El hemograma completo
- El panel metabólico o químico completo
- Los biomarcadores tumorales
- Análisis de orina
- estudios de imagenología
- Las radiografías
- ultrasonografía o ecografía
- exploraciones mediante tomografía computarizada o CT
- Biopsia de tumor.

## **TREATMENT:**

The types of treatment a child with cancer receives will depend on the type of cancer and how advanced it is. Common treatments are:

- > Surgery
- > Chemotherapy
- Radiotherapy
- immunotherapy and
- stem cell transplant



## **RECOMMENDATIONS:**

- Try to breastfeed the baby with breast milk, this reduces the risk of leukemia in children.
- During pregnancy, even before taking folic acid, this not only decreases the risk of the baby having spina bifida, it also decreases the risk of leukemia.
- It is important that the baby has all the vaccines, this helps to reduce the risk of suffering from acute leukemia.
- Do not expose yourself to pesticides during pregnancy.
- Avoid exposure to radiation during pregnancy.

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# THANK YOU