

A brief of **CHILDHOOD**

# CANCER

situation within the framework of  
health insurance in Colombia, **2023**



Fondo Colombiano de  
Enfermedades de Alto Costo

**A brief of childhood cancer situation within the framework of health insurance in Colombia 2023**



# **A brief of childhood cancer situation within the framework of health insurance in Colombia 2023**

Fondo Colombiano de Enfermedades de Alto Costo  
Cuenta de Alto Costo (CAC)

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The full textbook in spanish of the situation of childhood cancer in Colombia is available [at this link](#).

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### Change Tracking Table

Date	Version	Description of changes	Localization of changes
	1.0		

## Abbreviations

<b>ALL:</b>	acute lymphoblastic leukemia.
<b>AML:</b>	acute myeloid leukemia.
<b>CI:</b>	confidence interval.
<b>CNS:</b>	central nervous system.
<b>IQR:</b>	interquartile range.
<b>HL:</b>	Hodgkin lymphoma.
<b>NHL:</b>	non-Hodgkin lymphoma.
<b>PNCR:</b>	proportion of new cases reported. For the purpose of this document and a better understanding, it can be interpreted as an equivalent of the incidence.
<b>US:</b>	urinary system.



# Cancer **overview**



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# Infographic summary

## Chapter 1 at a glance

Cancer overview

Period: January 2, 2022 to January 1, 2023

### General characterization of cases



**8,962** prevalent cases  
of childhood cancer were reported.

The number of  
**new cases**  
was up to  
**1,090.**



Of the solid tumors, 99.7% were  
invasive.



51.4% of prevalent case were  
hematologic malignancies.



53.3% of new cancer cases were in  
men.

The median age of new  
**cancer cases**  
was **9 years**  
(IQR: 4 - 14).



54.0% of new cases were insured by the  
third payer, and most of them (25.7%)  
lived in the Central region.



The most frequent types of cancer  
among new cases were ALL (30.4%),  
CNS tumors (except eye neoplasms)  
(12.2%) and NHL 7.4%.

### Morbidity and mortality of childhood cancer

The crude PNCR

**increased**  
— **by 10.8%**  
compared to 2022.



Age-standardized PNCR was 77 new  
cases (95% CI: 72.6 - 81.9) per 1,000,000  
people under 18 years of age.



The highest age-standardized PNCr were observed in ALL, CNS tumors, and NHL with 24, 9, and 6 new cases per 1,000,000 people under 18 years, respectively.



Crude prevalence increased by 17.3% compared to 2022.



The age-standardized prevalence was 636 cases (95% CI: 623.1 - 649.6) per 1,000,000 people under 18 years.

## Crude mortality increased by 4.2% compared to 2022.



Age-standardized mortality was 29 deaths (95% CI: 26.7 - 32.4) per 1,000,000 people under 18 years.



Bogotá, D. C. was the region with the highest PNCr, prevalence, and mortality.



Age-standardized PNCr and prevalence were higher in children under special insurance.



In AML, the mortality and the PNCr had the lowest difference among all cancer type.



In women, most deaths were observed in those with ALL (33.7%), CNS tumors (24.4%), and mesothelial tissues tumors (except lung) (9.9%).



In men, the highest proportion of deaths was observed in ALL (35.5%), CNS tumors (18.6%), and NHL (8.7%).



The highest age-standardized mortality were observed in ALL and CNS tumors with 10 and 6 deaths per 1,000,000 people under 18 years.

## Clinical characterization of new cases



45.6 % of new cases were solid tumors, 37.3% were acute leukemia and 14.2% were lymphoma.



35.0% of solid tumors reported staging at diagnosis.



62.6% of lymphomas were diagnosed at advanced stages.



Risk classification was reported in 78.9% of acute leukemia cases and 72.3% of lymphomas.



40.2% of children with acute leukemia were classified as high-risk.



Systemic therapy was the most common treatment (77.8%), followed by surgery (28.4%).



At the national level, the median waiting time to diagnosis was 12 days (IQR: 4 - 26) and to the first treatment was 5 days (IQR: 0 - 17).



Diagnosis and treatment were shortly provided in AML with medians of 4 days (IQR: 2 - 7) and 1 day (IQR: 0 - 5), respectively.

## HL had the longest median waiting time for diagnosis, at 21 days (IQR: 10 - 40).

Childhood **acute  
lymphoblastic  
leukemia (ALL)**



Fondo Colombiano de  
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# Infographic summary

## Chapter 2 at a glance

Childhood acute lymphoblastic leukemia (ALL)

Period: January 2, 2022 to January 1, 2023

### Morbidity and mortality of ALL



**It was the most common among the pediatric population,** accounting for 33.4% (n= 2,991) of total cases notified.



There were 331 new cases, 2,991 prevalent cases, and 146 deaths during the analyzed period.



Age-standardized PNCR was 24 new cases (95% CI: 21.0 - 26.1) per 1,000,000 people under 18 years of age.



Age-standardized prevalence was 213 cases (95% CI: 205.3 - 220.6) per 1,000,000 people under 18 years of age.



Age-standardized general mortality was 10 deaths (95% CI: 8.8 - 12.2) per 1,000,000 people under 18 years of age.

### The highest age-standardized

# prevalence and mortality

were observed in Bogotá, D. C.



PNCR and prevalence estimates were higher in children under special insurance, while the general age-standardized mortality was higher in children under state insurance.



The prevalence and mortality increased by 16.5% and 7.2% respectively, compared to 2022.

## Characterization of new cases of ALL

The median age was  
**7 years (IQR: 4 - 12).**



50.4% were male.



48.3% were under the third payer insurance, and most new cases (26.3%) lived in the Central region.



At the national level, 81.0% of cases had risk stratification at diagnosis. This proportion was higher in children under exception insurance (100.0%) and those under the third payer insurance (81.9%).

**40.7% of new cases**  
were classified at intermediate risk, with similar proportions among those **under the third payer (40.5%) and those under state insurance (39.8%).**



Systemic therapy was provided to most new cases (95.2%), followed by hematopoietic cell transplant (1.8%).

## Quality measures in ALL



Regarding the diagnostic opportunity indicator, the average number of days was higher for children under state insurance (3 days) compared to those under the third payer (2 days).



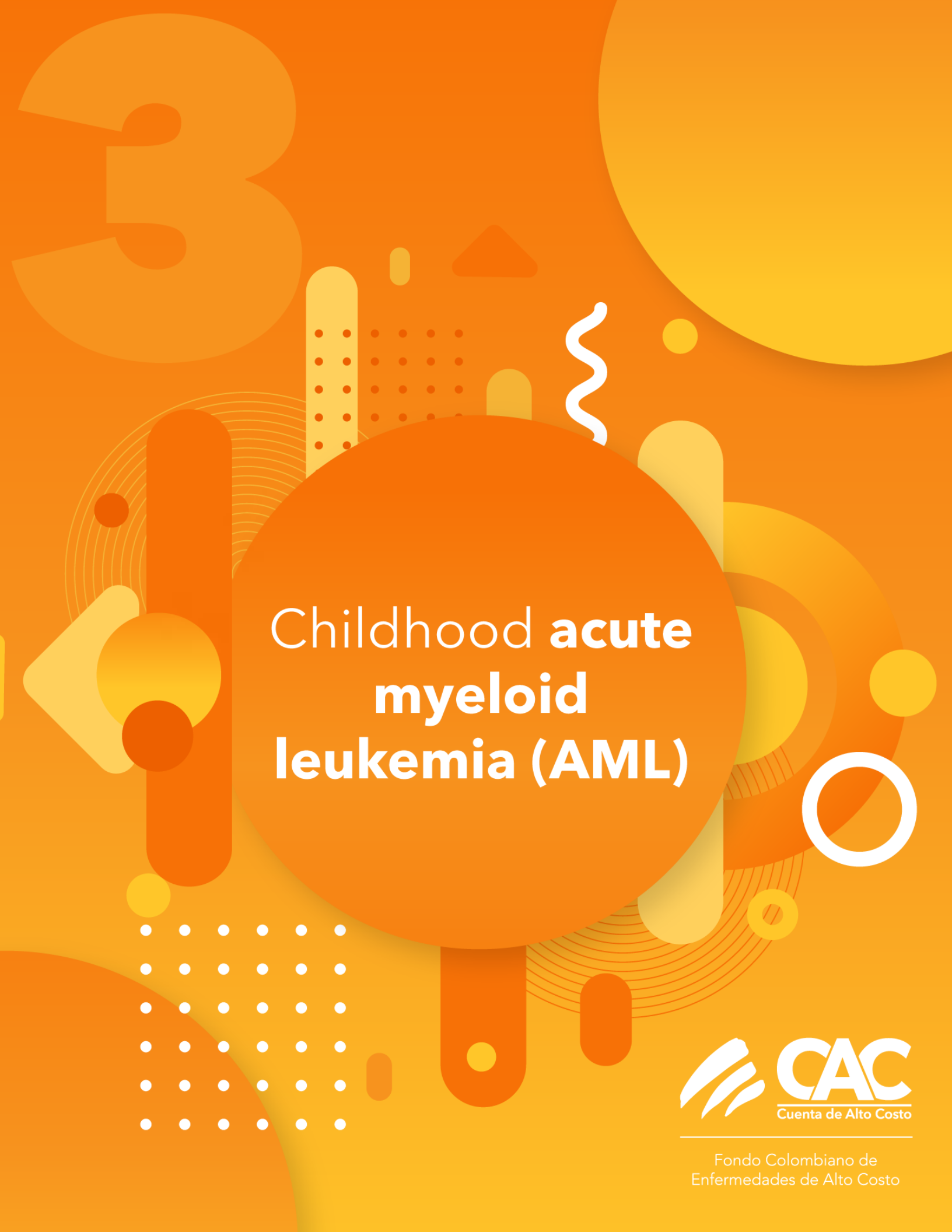
At the national level, the goal for the waiting time to access treatment ( $\leq 5$  days) was not reached, with an average of 9 days.



Nationwide and across all insurance groups, the indicator related to treatment abandonment had high performance, being 2.2% nationally.



The goal for mortality during induction treatment was reached, with an estimate of 3.5% nationally. In children under state insurance were 3.1%, while in those under the third payer were 4.2%.



Childhood **acute  
myeloid  
leukemia (AML)**



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# Infographic summary

## Chapter 3 at a glance

Childhood acute myeloid  
leukemia (AML)

Period: January 2, 2022 to January 1, 2023

### Morbidity and mortality of AML



It was the **fourth most common** cancer type in terms of the new cases reported, representing the 7.0% of the total.



There were 76 new cases, 372 prevalent cases and 30 deaths during the analyzed period.



The age-standardized PNCR was 5 new cases (95% CI: 4.3 - 6.8) per 1,000,000 people under 18 years of age.



The age-standardized prevalence was 27 cases (95% CI: 23.8 - 29.3) per 1,000,000 people under 18 years of age.



The age-standardized general mortality was 2 deaths (95% CI: 1.4 - 3.0) per 1,000,000 people under 18 years of age.

The Central region had the **highest PNCR**, while Bogotá, D. C. had the highest prevalence estimate.



The PNCR and prevalence were higher in children under the third payer insurance than in those under state insurance.



The PNCR increased by 51.3% compared to 2022; however, the mortality decreased by 4.8%.



## Characterization of new cases of AML

The median age was **11 years (IQR: 5 - 13).**



59.2% were male.



44.7% were under state insurance, and most new cases (27.6%) lived in Central regions.



At the national level, 69.7% of new cases had risk stratification. This proportion was higher among those under state insurance (70.6%).

**50.9% of cases with risk stratification** were classified as high-risk.



Systemic therapy was the most common treatment (90.8%), followed by hematopoietic cell transplant (11.8%).

## Quality measures in AML



The average waiting time to diagnosis was higher in children under the third payer (3 days) than those under state insurance (2 days).



The goal for the waiting time to access treatment ( $\leq 5$  days) was not reached, with an average of 8 days.

At the national level, the indicator related to

# treatment abandonment

showed better performance (7.5%) compared to 2022.



In the country, mortality during induction treatment decreased by 64.4% compared to 2022. Bogotá, D. C. (as a region) and the Oriental region had the highest performance in this indicator.

# Central nervous system (CNS) tumors



# Infographic summary

## Chapter 4 at a glance

Central nervous system (CNS) tumors

Period: January 2, 2022 to January 1, 2023

### Morbidity and mortality of CNS tumors



It was the **second most frequent** in terms of new cases reported.



There were 133 new cases, 994 prevalent cases, and 88 deaths during the period analyzed.



Age-standardized PNCR was 9 new cases (95% CI: 7.9 - 11.2) per 1,000,000 people under 18 years of age.



The age-standardized prevalence was 71 cases (95% CI: 66.4 - 75.3) per 1,000,000 people under 18 years of age.



Age-standardized general mortality was 6 deaths (95% CI: 5.0 - 7.7) per 1,000,000 people under 18 years of age.



The highest morbidity and mortality estimations were observed in Bogotá, D. C.

The mortality **increased by 25.4%** compared to 2022.



The highest PNCR and general mortality were registered in the third payer insurance group.

## Characterization of new cases of CNS tumor

The median age was  
**8 years (IQR: 5 - 12).**



57.1% were male.



60.1% were under the third payer insurance, and most new cases (22.6%) lived in the Central region.

## Histologic classification

was not available in **12.8% of new cases**, and this proportion was higher in children under state insurance (14.6%).



Excluding new cases with unknown and unspecified classification, the most frequent histology types were astrocytoma and medulloblastoma, each accounting for 26.3%.



In the last five periods, the children under the third payer insurance experienced an increase in the median waiting time to diagnosis.

# Surgery

was the most common ——— treatment

## (63.2%).



The median waiting time to access treatment decreased by 11 days compared to 2022.

# Non-Hodgkin lymphoma (NHL)



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# Infographic summary

## Chapter 5 at a glance

Non-Hodgkin lymphoma (NHL)

Period: January 2, 2022 to January 1, 2023

### Morbidity and mortality of NHL



It was the **fifth most frequent**  
in terms of new cases reported.



There were 74 new cases, 708 prevalent cases and 22 deaths during the period analyzed.



The age-standardized PNCR was 5 new cases (95% CI: 4.1 - 6.6) per 1,000,000 people under 18 years of age.



The age-standardized prevalence was 50 cases (95% CI: 46.8 - 54.3) per 1,000,000 people under 18 years of age.



The age-standardized mortality was 2 deaths (95% CI: 1.0 - 2.4) per 1,000,000 people under 18 years of age.



The highest age-standardized PNCR was estimated in the Central region, while the highest age-standardized general mortality was in the Caribbean region.



The third payer insurance group registered the highest morbidity and mortality estimates compared to those under state insurance.

Compared to 2022,  
**the PNCR  
and general mortality  
decreased**  
by 1.3% and 25.7%, respectively.



## Characterization of new cases of NHL

The median age was  
**10 years (IQR: 6 - 14).**



71.6% were male.



48.6% were under the state insurance, and most new cases (32.4%) lived in the Caribbean region.



At the national level, staging was reported in 71.6% of cases, with higher proportion in those under state insurance (72.2%).

**Risk classification**  
was documented in **58.1%**  
of new cases nationwide.



In the country and across all insurance groups, most cases were diagnosed at stage III (44.6%).



Among classified cases, 16.2% were high risk, with higher proportion in children under the third payer insurance (17.1%).

**Systemic therapy**  
was the most frequently used  
**treatment**  
**(82.4%).**



In the country and under state insurance, the median waiting time to diagnosis decreased.



Nationwide, the median waiting time for treatment initiation has remained similar over the last four years (median: 3 days).

# Hodgkin lymphoma (HL)



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# Infographic summary

## Chapter 6 at a glance

Hodgkin lymphoma (HL)

Period: January 2, 2022 to January 1, 2023

### Morbidity and mortality of HL



It was the **third most frequent** in terms of new cases reported.



There were 81 new cases, 535 prevalent cases, and 4 deaths during the period analyzed.



The age-standardized PNCR was 6 new cases (95% IC: 4.6 - 7.2) per 1,000,000 people under 18 years of age.



The age-standardized prevalence was 38 cases (95% IC: 35.0 - 41.5) per 1,000,000 people under 18 years of age.



The age-standardized mortality was 0.3 deaths (95% IC: 0.1 - 0.7) per 1,000,000 people under 18 years of age.



The highest age-standardized PNCR was estimated in the Pacific region, while the prevalence and mortality were higher in Bogotá, D. C. (considered as a region).



Prevalence and PNCR were higher in children under the third payer insurance.

Compared to 2022,

# the PNCR increased

by **36.9%**, followed by the prevalence at 23.6%.

## Characterization of new cases of HL

The median age was

**12 years (IQR: 9 - 15).**



64.2% were males.



61.7% had the third payer insurance, and most (24.7%) lived in the Central region.



At the national level, 86.4% were staged at diagnosis; this proportion was higher in children under third payer (88.0%).

The most cases were

**diagnosed  
at stage II (32.1%),**

with similar proportion in the third payer group (28.0%) and those under state insurance (34.5%).



In the country, risk classification was documented in 85.2% of new cases.



45.7% of the cases were classified as high risk.

Systemic therapy  
was the most frequently used  
**treatment  
(87.6%).**



Nationally, the median waiting time to diagnosis was 20 days and to the first treatment was 9 days.



In 2023, the median waiting time to treatment decreased by 9 days compared to 2022.

# Urinary system (US) tumors

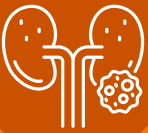
# Infographic summary

## Chapter 7 at a glance

Urinary system (US) tumors

Period: January 2, 2022 to January 1, 2023

### Morbidity and mortality of US tumors



It was the **fourth most frequent**  
in terms of total cases notified.



There were 37 new cases, 543 prevalent cases, and 11 deaths during the period analyzed.



Age-standardized PNCR was 3 new cases (95% CI: 1.8 - 3.6) per 1,000,000 people under 18 years.



Age-standardized prevalence was 39 cases (95% CI: 35.4 - 42.0) per 1,000,000 people under 18 years of age.



Age-standardized mortality was 1 deaths (95% CI: 0.4 - 1.4) per 1,000,000 people under 18 years of age.



The highest prevalence was registered in Bogotá D. C. while the general mortality was higher in the Amazonía-Orinoquía region.



The third payer insurance registered the highest PNCR and prevalence, while the general mortality was higher in the state insurance group.

In 2023,  
**the PNCR  
and the general mortality  
decreased**  
by 6.0% and 20.4%, respectively.



## Characterization of new cases of US tumors

The median age was

**4 years (IQR: 3 - 5).**



59.5% were females.



70.3% were under third payer insurance and most new cases (29.7%) lived in the Central region.



At the national level, the stage at diagnosis was reported in 78.4% of the cases; this proportion was higher in third payer insurance (80.8%).

Nationally, most cases were

**diagnosed  
at stage III  
(24.3%).**

**Systemic therapy**  
was the most frequently used  
**treatment**  
**(81.1%),**  
followed by surgery (78.4%).



In the country and under state insurance, the median waiting time to diagnosis decreased.



Treatment was shortly provided in children under the third payer insurance (median: 1 day).



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