

# INFLUENCE OF HEALTH-INSURANCE STATUS ON CHILDHOOD CANCER TREATMENT IN KENYA

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## ABSTRACT

**Background.** Survival of childhood cancer in high-income countries is around 80%, whereas in low-income countries it is less than 35%. Limited access to health-insurance in low-income settings may play a role in the poor survival rates. This study examines the influence of health-insurance status on childhood cancer treatment in a Kenyan academic hospital.

**Methods.** This was a retrospective medical records study. All children diagnosed with a malignancy from 2010 until 2012 were included. Data on treatment outcomes and health-insurance status at diagnosis were collected.

**Results.** Of all 280 patients, 34% abandoned treatment, 19% died, 18% had progressive or relapsed disease, and 29% event-free survival. The majority of patients (65%) did not have health-insurance at diagnosis. Of those patients without health-insurance at diagnosis, 77% enrolled in health-insurance during treatment. The main treatment outcome of the group of patients without health-insurance at diagnosis was abandonment of treatment (37%), while the main treatment outcome of the group of patients with health-insurance at diagnosis was event-free survival (37%). The event-free survival estimate was significantly higher for patients with health-insurance at diagnosis than for patients without ( $P=0.004$ ).

**Conclusion.** Childhood cancer survival was 29% at a Kenyan academic hospital. The main reason of treatment failure was abandonment of cancer treatment. Children without health-insurance at diagnosis had a significant lower chance of survival. Childhood cancer treatment outcomes could be ameliorated by strategies that prevent abandonment of treatment and improve access to health-insurance.

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