

Profile and cancer prognosis among patients enrolled in the Brazilian National Institute of Cancer according to HIV testing and HIV status



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## INTRODUCTION

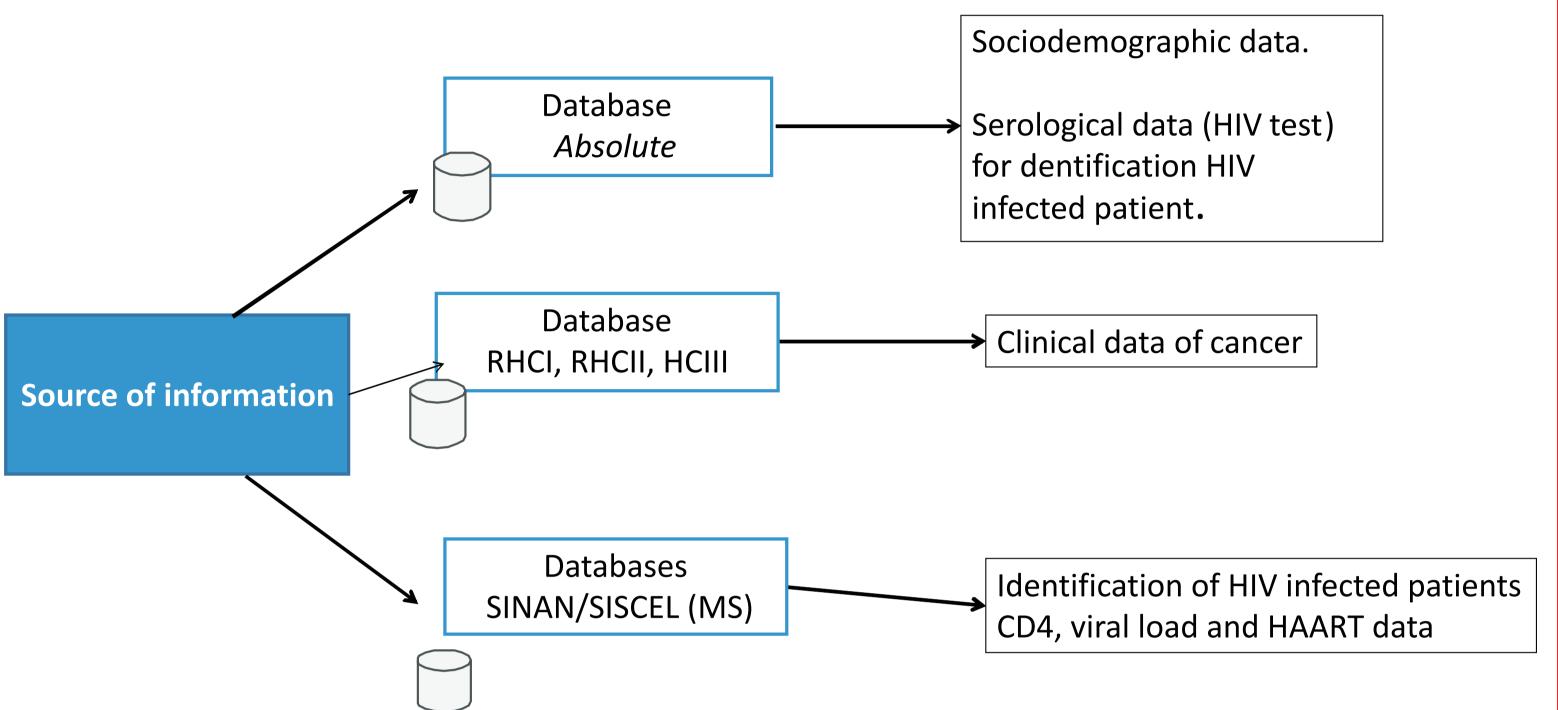
Cancer has been associated with HIV infection since the beginning of the HIV/AIDS epidemic. Cancer is currently the main cause of morbidity and mortality in HIV+ people. Since the initiation of antiretroviral therapy, cancer incidence rates in these individuals have changed. AIDS-defining cancers (ADC) have decreased, while non-AIDS-defining cancers has increased with age.

### **OBJECTIVE**

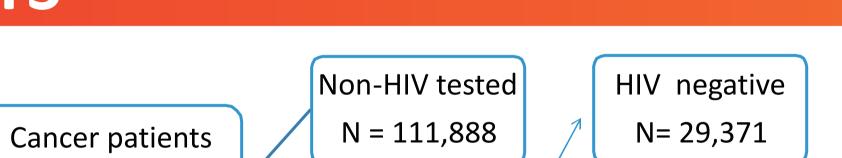
Evaluate the characteristics and prognosis of patients enrolled at Brazilian National Institute of Cancer (INCA) during 2001-2014 according to the HIV selorogical testing and HIV status.

## METHODOLOGY

This is a retrospective cohort study that included patients with confirmed diagnosis of cancer. The study subjects were hierarchically grouped in three populations. The total eligible population, those that were tested for HIV within the eligible group and those HIV-positive among the latter. The socio-demographic and HIV serologic testing data have been collected through the institution *Absolute* database. The information related to clinical data on the treatment for cancer was obtained from the Hospital Cancer Registry databases (RHC) (Figure 1). Serological testing at INCA was the main form of identification of HIV+ and HIV-patients. A second manner used for identifying patients HIV+ was linking the RHC database with two national databases from Ministry of Healthy, SINAM and SISCEL, which are databases of HIV-infected patients reported to the Ministry of Health or containing HIV viral load and CD4 T-cell count data of HIV-positive patients, respectively. For the statistical analyses, the chi-square test will be used for the comparison of the groups and for the survival analyses the Kaplan-Meier model will be used.



RESULTS



**Table 1.** Characteristic of total population, HIV-negative and HIV-positive patients with cancer treated at the Brazilian National Institute of Cancer

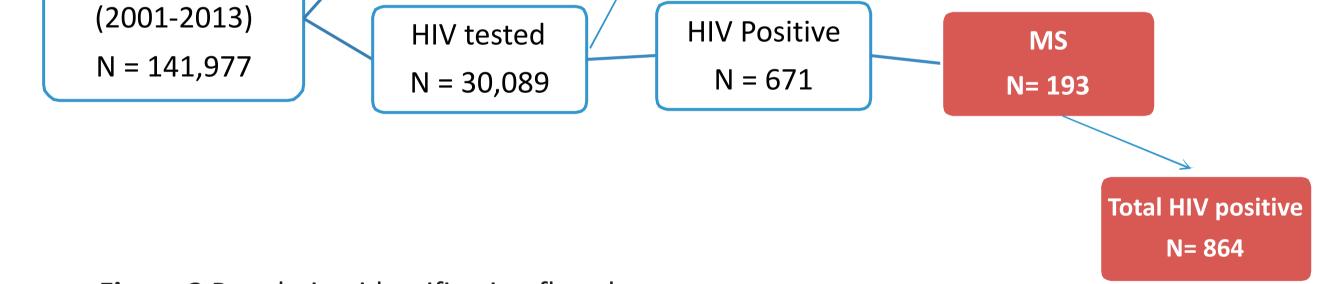
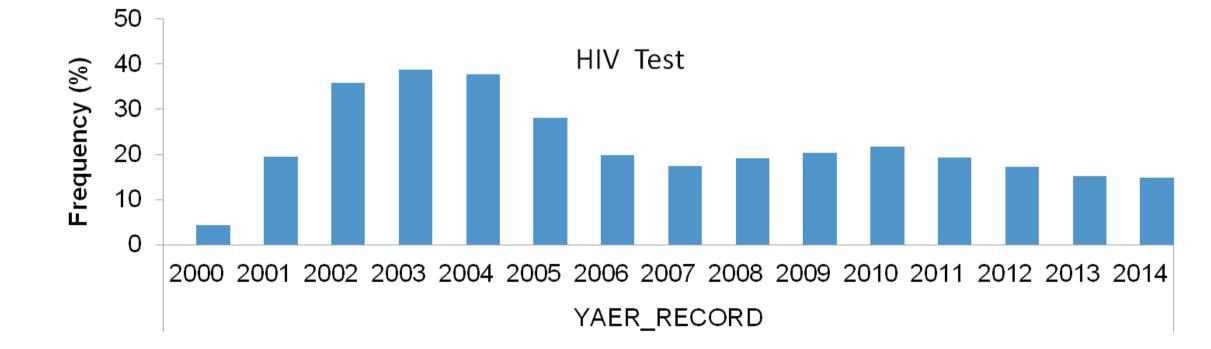
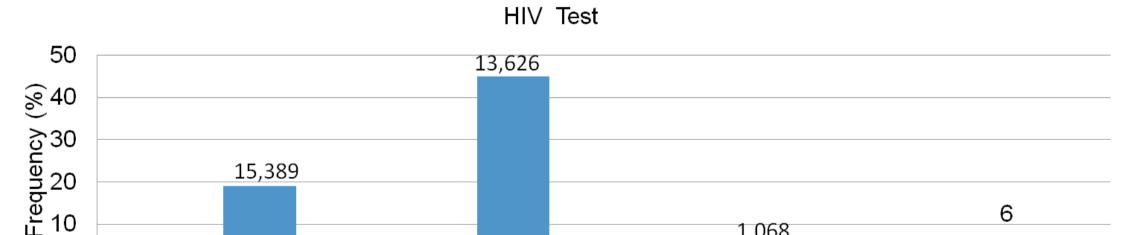


Figura 2 Population identification flowchart

The number of HIV serological tests per year varied during the period of study. The years 2003 (38%) and 2004 (37%) presented a higher prevalence of patients tested for HIV.

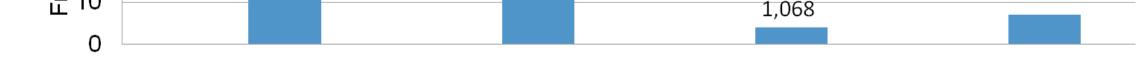


#### Figure 3 Frequency of HIV test per year of enrollment at INCA.



Characteristics	Total population N (%)	HIV-negative N (%)	HIV-positive N (%)
Total	141,977(100)	29,371(100)	864 (100)
Age at registration			
Mean	56,5 (16.7)	51,9 (15.8)	42.9 (11.5)
Year of registration			
2000-2004	58,637 (41.3)	13,568 (46.1)	364 (42.1)
2005-2009	43,396 (30.5)	8,896 (30.2)	281 (32.6)
2010-2014	39,944 (28.1)	6,907 (23.7)	21 9 (25.3)
Gender			
Male	51,228 (36)	9,719 (33)	394 (45.6)
Female	90,749 (64)	19,652 (67)	470 (54.4)
Marital status			
Single	35,166 (24.7)	8,831 (30)	342 (39.5)
Married / stable marriage	69,336 (48.8)	13,663 (46.5)	225 (25.2)
Separated / Widowed	35,71 (25.3)	6,613 (22.5)	104 (12)
missing	1,761 (1.2)	264 (0.8)	193 (22.9)
Race			
White	88,857 (62.5)	17,586 (59.8)	454 (52.5)
Not white	50,303 (35.6)	11,601 (39.4)	403 (46.6)
missing	2,817 (1.9)	184 (0.8)	7 (0.9)
Education			
Illiterate	12,203 (8.6)	2,458 (8.3)	54 (6.5)
Incomplite primary school	61,470 ( 43.2)	12,269 (41.7)	341 (39.3)
Primary school	22,434 (15.9)	5,355 (18.2)	134 (15.4)
Secundary school	42,231 (29.8)	9,050 (30.8)	302 (35)
missing	3.639 (2,5)	239 (1)	33 (3,8)

### CONCLUSION



Hospital do Câncer I Hospital do Câncer II Hospital do Câncer III Hospital do Câncer IV

**Figure 4** Frequency of HIV test per hospital unit of INCA.

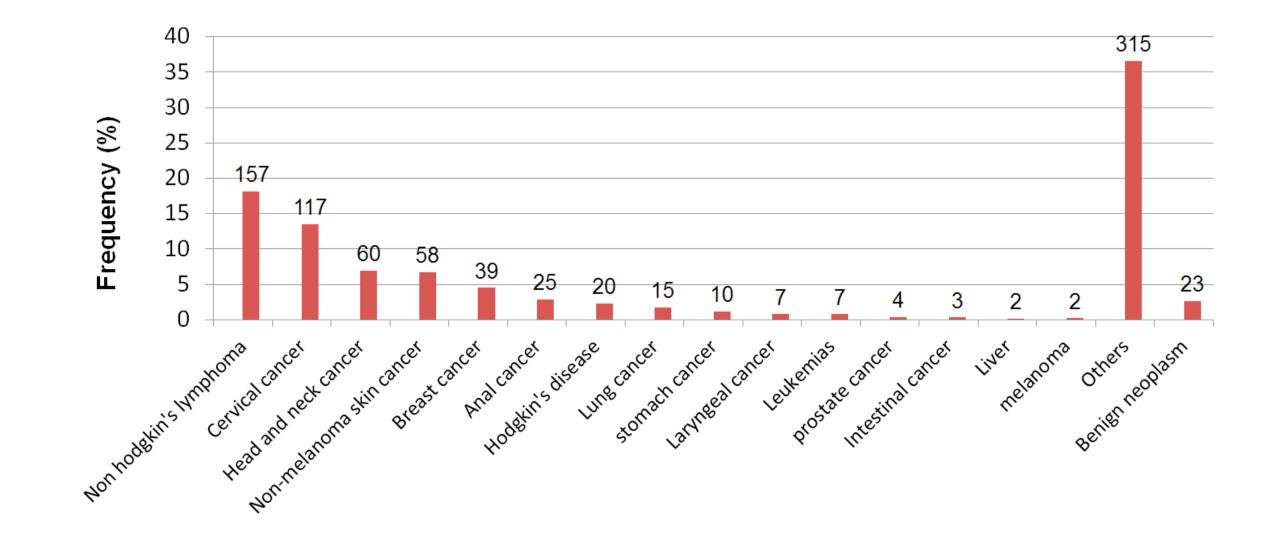


Figure 5 Distribution types of cancer in HIV-positive patients at INCA.

We identified 864 HIV-positive patients in the institution. HIV testing varied according to hospital units. The highest frequency of HIV testing was in HCII, the hospital where they are treated primarily for genital cancer. A systematic HIV testing is recommended for the Institution.

# PERSPECTIVES

We next plan to update cancer follow-up data and complete information on clinical data (CD4 T-cell counts and HIV viral load) provided by the SISCEL database.

Projeto Gráfico: Serviço de Edição e Informação Técnico-Científica / INCA







