

# **HIV infected patients attendance in a Brazilian public health service: a short report**

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# Abstract

**Background.** Continuous health monitoring of human immunodeficiency virus (HIV) infected patients is critical to allow uninterrupted access to antiretroviral therapy (ART) and sustained viral suppression. Despite public health effort for patient retention in care, many HIV-infected patients fail to maintain effective engagement in Health Services. This study reports the attendance of HIV infected individuals for routine exams in a Brazilian outpatient clinic.

**Methods.** Patients were enrolled in two moments, 2010/2011 and 2014/2015, as they attended the public service for monitoring HIV infection status. The individuals that agreed to participate the study signed an informed consent and completed a structured questionnaire.

**Results.** Of 58 initially expected patients, only 31 participated in the second part of the study. The reasons for these individuals not returning to the health service during the study period were not related to death (1.7%) and the majority of them still remained enrolled in the service and in follow-up.

**Discussion.** The difficulty of HIV infected patients in returning to healthcare services have been reported by several authors. Among the barriers that prevent monitoring, we suggest that noncompliance may also be linked to years of study. However this subject needs more investigation.

**Keywords:** HIV, patients, health care.

## Introduction

According to the latest Brazilian HIV epidemiological report, from June 2007 to June 2017, 194,217 HIV infection cases were reported in Brazil. The country has registered, annually, an average of 40,000 new cases of Aids in the last five years (Ministério da Saúde, Brasil, 2017a).

Regarding clinical care of HIV infected patients attended Brazilian health services, the therapeutic staff arranges the assistance for these patients in three phases designated as "binding", "retention" and "adhesion". Binding is the process of hosting, guiding, directing and referral of a person newly diagnosed with HIV to the health service, to carry out initial consultations and examinations as soon as possible and develop autonomy for continuous care. Retention is the process of regular and continuous clinical follow-up of the person living with HIV already linked to the health service, ensuring that the individuals come regularly, and remain in therapy, treatment, while respecting their autonomy. Binding and retention usually culminate in ideal adhesion to antiretroviral therapy (Ministério da Saúde, Brasil, 2017b).

In the 1990s, Brazil adopted a public policy that allowed for universal access to antiretroviral therapy, with free distribution of medication to all people infected with human immunodeficiency virus (HIV). Since patients have to frequently attend medical appointments and undergo laboratory tests to maintain the treatment, the strategy resulted in a reduction of morbidity, mortality, and hospitalization rates, and thus an increase in life expectancy of HIV transmission (Grangeiro et al., 2014). Despite positive data, the attendance of HIV patients in health services, in order to monitor their health, with the ideal frequency is still a challenge.

In this paper we report the assistance to a group living with HIV attending a public health service from Niterói, Rio de Janeiro, Brazil, along 4 years.

## Materials & Methods

The study population consisted, initially, of 58 HIV-infected individuals of both sexes, age over 18. These patients were surveyed in 2010/2011 (moment 1, M1) for monitoring their health status in the Infectious Diseases Service of the Universidade Federal Fluminense, Niterói City, Rio de Janeiro, Brazil. After 4 to 5 years later (2014/2015), the same patients were screened

and sought at the same health service (moment 2, M2). The study was approved by the Ethics Committee from the Medical College, Protocol 226.602 from 05/04/2013.

Data from patients were collected, in both moments, through a structured questionnaire including demographic factors, smoking, HIV load, ART, and HIV detection period after completing the free and informed consent.

## Results and discussion

Out of 58 patients enrolled in 2010/2011 (M1), only 31 (56.6%) returned to the outpatient clinic at moment 2 (M2).

In M1, the patients aged from 19 to 69 years old, with a mean of 41.5 years, being 31(53.4%) male and 27 (46.6%) female. Among the self-referred ethnic groups, white was the prevalent category (70.7%) and 60.4% of the individuals had attended high school or higher. Over half of the sample had not a stable sexual partner (51.7%). Currently, 72.4% were non-smokers, but 62,1% had smoked at some point in their lives. Regarding HIV infection, all of the people were treated with standard ART, and 65.5% had been receiving ART over four years. At the time of the study, 79.3% of the participants reported being HIV positive more than four years prior, and 62.1% had an undetectable viral HIV load.

Of 31 HIV-positive individuals enrolled in M2, 20 (64.5%) were male and 11 were female (35.5%). They were aged from 34 to 72 years old, with a mean of 50.10 years. All of them continued to be treated with ART, and 92.4% had received ART for more than 8 years. Among these individuals, 54.9% had attended high school or college. After 4 years (M2), 81.1% had an undetectable HIV load.

The reasons for the 27 (46,55%) individuals not returning to the health service were not related to death (1.7%) and 82.8% of the patients still remained enrolled in the service and in follow-up. Although they were expected in the infectious diseases service for over a year from 2014, they have not attended for routine follow-up exams.

Some studies report the difficulty of HIV-infected patients attending regularly to health services. Marks et al., 2010, in a meta-analysis of a period of more than 3 years, reported that 62% of North American patients, infected by HIV, remained attending periodically in health services to follow the infection. Fleishman et al., 2012, also reported the same difficulty, pointing

out, from data collected from 12 clinics, that 49% to 68% patients continued to attend the health service for 2 years. The papers point to psychiatric problems and substance abuse as causes for the abandonment of medical follow-up, but we cannot infer that concerning the population of our report since we did not evaluated this information.

Regarding the schooling profile, in both moments (M1 and M2) more than half of the participants attended high school or higher. In M2, six individuals were graduated. Although this fact contradicts the growing rates tendency of HIV infection in populations with less years of education (Miyada et al., 2017), additional years of study could be a factor that has led the 31 patients to continually care for their health, however this statement requires better evaluation.

This paper reports a high percentage of HIV infected patients who are not engaged with the importance of follow-up exams. Certainly, the causes of that discontinued attendance needs more evaluation, considering social information and other data.

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