Short Report: Risk Factors for Delayed Access to Specialized Care in French Guiana

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Abstract. The variables influencing the interval between diagnosis and effective access to specialized care were studied in a cohort of 2,661 human immunodeficiency virus (HIV)-positive patients in French Guiana between 1992 and 2008. Patients with a subsequent follow-up interruption were significantly more likely to have a delayed first consultation after the HIV diagnosis. Ordinal logistic regression showed that younger persons, women, and French citizens were independently associated with greater delays between the HIV diagnosis and the first specialized consultation. However, persons with acquired immunodeficiency syndrome (AIDS) were less likely to have a delay between the HIV diagnosis and the first specialized consultation. Focusing on the link between the private sector and specialized health care may shorten delays and improve care and follow-up.

To maximize the benefits of highly active antiretroviral therapy (HAART), health systems must diagnose human immunodeficiency virus-infected (HIV) patients as early as possible, refer them to an HIV care facility, and maintain patient follow-up and care. The risk factors for late diagnosis¹ and follow-up interruption² have been described by a number of studies. Fewer studies, however, have studied the variables influencing the interval between the diagnosis and effective access to specialized care.^{3–5} French Guiana is the French territory that is most affected by HIV. HIV-positive patients have free access to treatment and care. Antiretroviral therapy must be initiated in the hospital, and then, the patient is free to have his prescriptions renewed by any other physician. There are frequent delays in HIV testing, notably among migrants, and the incidence of patients with interrupted follow-up is high. To identify factors associated with delayed access to care, a retrospective study was conducted in French Guiana.

All HIV-positive adult patients followed in Cayenne, Kourou, and Saint Laurent du Maroni Hospitals between January 1, 1992 and October 31, 2008 were enrolled in the French Hospital Database for HIV (FHDH). Time-independent variables, such as sex, nationality, and mode of acquisition of HIV, and time-dependent variables, such as age, CD4 and CD8 cell counts, HIV-1 viral loads, treatments, and clinical events, reported by the clinicians are routinely entered by trained clinical studies technicians. The identities of patients are encrypted before the data are sent to the Ministry of Health and the Institut National de la Recherche Médicale, which centralize data from COREVIHs (Regional Coordination of the Fight Against HIV) throughout France. This data collection is approved by the Commission Nationale Informatique et Libertés. The data were analyzed using STATA 9.0 (STATA Corp., College Station, TX).

The delay between the date of a positive HIV test and the first consultation in the hospital was calculated and categorized into < 1 month, between 1 and 3 months, between 3 and 12 months, and > 12 months. An ordinal logit model

with the categorized delays as a dependent variable was used to determine the independent variables that were related to the outcome.

A total of 2,661 patients were in the database. Of these, 60% were first seen in the hospital within 1 month, 15% were first seen between 1 and 3 months, 10% were first seen between 3 and 12 months, and 15% were first seen > 1 year after diagnosis. Patients who later had at least one follow-up interruption (no consultation for > 1 year) were more likely to have a delayed first consultation after the HIV diagnosis than patients with no subsequent history of follow-up interruption ($P = 0.001$) (Table 1).

Table 2 shows that younger persons, women, French citizens, and persons from Cayenne and Kourou were independently associated with greater delays between the HIV diagnosis and the first specialized consultation. However, persons with acquired immunodeficiency syndrome (AIDS) were less likely to have a delay between the HIV diagnosis and the first specialized consultation, suggesting that the AIDS-defining event led to the HIV diagnosis.

Numerous forces influence the interval between the results of the HIV test and the first contact with an HIV specialist. These results suggest that some patients that do not have opportunistic infections are more likely to delay their access to care. Crack users, because of the behavioral problems associated with crack, may not be a suitable clientele for private practice and only get tested in the hospital, thereby being in

TABLE 1

Relationship of the history of follow-up interruption and the interval between HIV diagnosis and the first specialized consultation

	No history of follow-up interruption (%)	History of follow-up interruption (%)
Interval between HIV diagnosis and first specialized consultation was < 1 month	1,915 (62)	459 (54)
Interval between HIV diagnosis and first specialized consultation was 1–3 months	2,211 (14)	154 (18)
Interval between HIV diagnosis and first specialized consultation was 3–12 months	3,127 (9)	101 (12)
Interval between HIV diagnosis and first specialized consultation was > 12 months	4,218 (15)	130 (15)

χ^2 for linear trend was $P < 0.001$.

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TABLE 2

Risk factors for increased delay between HIV diagnosis and first specialized consultation

	Crude odds ratio (95% CI)	P value	Adjusted odds ratio* (95% CI)	P value
Age < 30 years	1.2 (1–1.3)	0.01	1.3 (1.1–1.6)	0.003
Female	1.1 (0.9–1.2)	0.17	1.2 (1–1.5)	0.006
French citizen	2 (1.7–2.4)	< 0.001	2 (1.7–2.5)	< 0.001
Known use of crack cocaine	0.3 (0.1–0.7)	0.007	0.2 (0.1–0.7)	0.007
City				
Cayenne	1.4 (1.1–1.7)	0.001	1.5 (1.1–1.9)	0.001
Kourou	1.4 (1–1.9)	0.02	1.7 (1.1–2.6)	0.007
Saint Laurent du Maroni	1		1	
AIDS	0.5 (0.5–0.8)	< 0.001	0.5 (0.4–0.6)	< 0.001

* Obtained using an ordinal logistic regression model including the above covariables.

immediate contact with HIV specialists. This result is at odds with a previous study showing that injected-drug users had a greater delay between testing and access to care.⁵ French citizens might have been more wary of being seen in the outpatient department and therefore, delayed their access to specialized care. They may also have been more likely to have health insurance and consult private practitioners. Women may also be more tempted to consult private general practitioners who can tend to their health problems and their children's health problems. This suggests that the connection between private practitioners and hospital-based specialized HIV care should be strengthened, because early treatment indications are gaining ground. There were also geographical differences, suggesting that local conditions affected access to specialized care. Finally, there was a link between the delay in accessing specialized care and the subsequent likelihood of follow-up interruption, thereby constituting an early warning sign that allows interventions to improve follow-up.

Received November 26, 2010. Accepted for publication January 13, 2011.

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