

# Acceptability of routine HIV counselling and testing, and HIV seroprevalence in Ugandan hospitals

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**Objective** Mulago and Mbarara hospitals are large tertiary hospitals in Uganda with a high HIV/AIDS burden. Until recently, HIV testing was available only upon request and payment. From November 2004, routine free HIV testing and counselling has been offered to improve testing coverage and the clinical management of patients. All patients in participating units who had not previously tested HIV-positive were offered HIV testing. Family members of patients seen at the hospitals were also offered testing.

**Methods** Data collected at the 25 participating wards and clinics between 1 November 2004 and 28 February 2006 were analysed to determine the uptake rate of testing and the HIV seroprevalence among patients and their family members.

**Findings** Of the 51 642 patients offered HIV testing, 50 649 (98%) accepted. In those who had not previously tested HIV-positive, the overall HIV prevalence was 25%, with 81% being tested for the first time. The highest prevalence was found in medical inpatients (35%) and the lowest, in surgical inpatients (12%). The prevalence of HIV was 28% in the 39 037 patients who had never been tested before and 9% in those who had previously tested negative. Of the 10 439 family members offered testing, 9720 (93%) accepted. The prevalence in family members was 20%. Among 1213 couples tested, 224 (19%) had a discordant HIV status.

**Conclusion** In two large Ugandan hospitals, routine HIV testing and counselling was highly acceptable and identified many previously undiagnosed HIV infections and HIV-discordant partnerships among patients and their family members.

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Une traduction en français de ce résumé figure à la fin de l'article. Al final del artículo se facilita una traducción al español. الترجمة العربية لهذه الخلاصة في نهاية النص الكامل لهذه المقالة.

## Introduction

Both counselling and testing are key components of HIV prevention and care programmes.<sup>1</sup> Through HIV counselling and testing (HCT), uninfected individuals can take steps to avoid becoming infected, while infected individuals can avoid transmission to sexual partners or children.<sup>2–5</sup> Moreover, HCT is the first step in referral to care and support services.<sup>6,7</sup> It has also become important for preventing mother-to-child transmission and increasing access to HIV/AIDS care, including antiretroviral therapy (ART).<sup>8,9</sup> Even with limited availability of ART, early diagnosis of HIV and access to basic preventive care, including co-trimoxazole, can slow progression to AIDS.<sup>10,11</sup> Providing HCT for family members of HIV-positive patients can identify other HIV-infected individuals in their households, facilitate partner disclosure and testing, identify HIV-discordant couples, and support

care and medication adherence in HIV-infected individuals.<sup>12</sup> Worldwide, it is estimated that over 90% of HIV-infected individuals are still unaware of their status.<sup>13–15</sup> In Uganda, 15% of the general population has received HCT, while more than 70% would like to be tested.<sup>16</sup>

Hospitals in high-prevalence settings are crowded with HIV/AIDS patients,<sup>17–19</sup> though the majority only learn about their infection late in the disease course, if ever.<sup>20–24</sup> A survey at Mulago hospital in Uganda found that half of medical inpatients with HIV-related diagnoses left hospital without HCT.<sup>25</sup>

It has been proposed that offering HCT routinely in health-care settings will increase access to care.<sup>6,7,13,17</sup> Routine HCT is initiated by health-care providers and offers testing to all patients irrespective of their presenting illness. This approach differs from voluntary counselling and testing, which

is client-initiated. The guidelines on provider-initiated HCT at health-care facilities, released by WHO in May 2007, recommend that testing should be part of standard medical care for all patients during widespread HIV epidemics.<sup>26</sup> The United States Centers for Disease Control and Prevention (CDC) also revised HCT guidelines to recommend routine screening for HIV infection in health-care settings for individuals aged 13–64 years.<sup>27</sup> When Botswana introduced routine opt-out HCT, HIV testing and interventions to prevent mother-to-child transmission both increased.<sup>28</sup> The revised Ugandan HCT policy recommends routine HCT in health-care facilities, including antenatal clinics.<sup>29</sup>

We implemented routine HCT at Mulago and Mbarara hospitals in Uganda, assessed testing uptake, and estimated HIV seroprevalence among patients and their family members.

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## Methods

### Setting

Mulago and Mbarara hospitals are the largest, tertiary, public, university teaching hospitals in Uganda. Mulago hospital has more than 600 000 patient-visits per year while Mbarara hospital serves over 100 000 patients annually. Although outpatient HIV clinics have been operational since 1987 in Mulago and since 1998 in Mbarara, the services offered were limited. Until recently, HCT was provided for patients only on request and when they were able to pay the fee of 5000 Ugandan shillings (US\$ 3). A survey in July 2003 revealed that 67% of medical inpatients at Mulago had never been tested for HIV and only 20% had been tested during hospitalization, although 64% wanted to be tested.<sup>24</sup>

### HCT programme

The Mulago and Mbarara routine HCT programme was established in November 2004. Coverage had expanded from four to 25 wards or clinics (16 in Mulago and nine in Mbarara) by February 2006; this represents 31% of the wards and clinics in Mulago and 50% of those in Mbarara. Units that were thought to have patient populations in which there was a high HIV prevalence were prioritized. The units offering routine HCT included four medical wards, four obstetrics and gynaecology wards, two sexually transmitted disease (STD) outpatient clinics, two dermatology outpatient clinics, five paediatric inpatient wards, two cancer inpatient wards, one tuberculosis ward and two medical emergency outpatient units. Two surgical wards and one dental clinic started offering routine HCT in October 2005 to assess the need among surgical patients.

In the selected wards and clinics, health-care providers offered HCT on an opt-out basis to all patients whose HIV status was unknown. Patients who reported a previous negative test result more than three months before the current hospital contact were also offered HCT. Individuals whose medical records showed that they were HIV-positive were not re-tested. In practice, HCT was offered alongside other clinical investigations and consent was provided for all tests. Patients were informed that they were free to decline testing and that

those who opted-out would still receive the medical care required. Testing was provided to all patients unless they declined. Pretest information was provided to groups of patients, in outpatient waiting areas and general wards, and emphasized the benefits of HCT, such as the care available for HIV-infected individuals. Information on risk reduction was repeated during one-on-one post-test sessions.

Rapid HIV testing was used. The sequential rapid testing algorithm included the Determine HIV-1/2 assay (Abbott Laboratories, Illinois, United States of America) for screening, the HIV-1/2 STAT-PAK Dipstick assay (ChemBio Diagnostic Systems Inc., New York, USA) for confirmatory testing, and the Uni-Gold test (Trinity Biotech, Wicklow, Ireland) as the tie-breaker. An HIV-negative result with the Determine assay was reported as negative. An HIV-positive result with the Determine assay was confirmed using the STAT-PAK assay and was reported as positive if both tests gave positive results. If the Determine and STAT-PAK assay results were discordant, the sample was subjected to a third test, the Uni-Gold test. The result was reported as positive if the Uni-Gold test result was positive and negative if both STAT-PAK assay and Uni-Gold test results were negative. Children aged less than 18 months who were HIV-positive had their HIV status confirmed by a deoxyribonucleic acid (DNA) polymerase chain reaction (PCR) test. Patients received pretest and post-test counselling on the same day. Test results were also provided to the medical team. Health-care providers and counsellors encouraged patients to disclose their HIV status to sexual partners and family members when they felt ready to do so. The counsellor assisted with disclosure if requested by the patient. Health-care providers who had undergone appropriate training also participated in disclosing results to patients and their family members.

Any of the patients' spouses, children, parents or other household members who were present in hospital was also offered HCT. Couples testing was encouraged whenever the patients' sexual partners were present. In paediatric wards, HIV testing was offered to children more than 3 months of age

and their parents or carers. Some parents with documented HIV-positive results had children whose HIV status was unknown. In these cases, only the children were tested. Parents or guardians provided consent for children aged less than 12 years. Children aged 12 to 17 years had to agree to testing, in addition to receiving consent from their parents or guardians.

All patients, whether HIV-negative or HIV-positive, were counselled on risk reduction after the test. In addition, HIV-positive patients were also given information on the HIV/AIDS care available. Co-trimoxazole prophylaxis and tuberculosis screening were initiated on diagnosis. On discharge, HIV-positive patients were given referrals to HIV/AIDS clinics for follow-up care.

### Data collection

Data collected from individuals who were offered HCT included age, sex, educational level, marital status, history of HIV testing, and last sexual partner's HIV status (for those who reported sexual contact within 12 months). Reasons for declining current testing and hospital category (i.e. medical inpatient, medical outpatient, cancer inpatient, surgical inpatient, or paediatric, obstetrics and gynaecology, STD clinic or dermatology clinic patient) were also documented. Family members who were tested were recorded as a father or mother (for paediatric patients), sexual partner or other family member.

### Analysis

Data from all units that offered routine HCT between 1 November 2004 and 28 February 2006 were included. The characteristics of patients who were tested and those who declined testing were compared. In addition, HIV seroprevalence was analysed by age, sex and hospital ward or clinic. The overall HIV burden in each unit (which included patients admitted with a documented HIV-positive test result and HIV-positive patients identified by routine HCT during the current visit) was also calculated. The accessibility of routine HCT in the wards and clinics was quantified as the proportion of patients who were offered HCT relative to those eligible for the test. The uptake of routine HCT was quantified as the proportion of patients who accepted

HCT relative to those who were offered it. In addition, bivariate and multivariate logistic regression analyses were carried out for patients aged 15 years or older to identify associations between an HIV-positive status and sociodemographic characteristics and the type of ward or clinic. All the variables included in the bivariate analysis were also included in the multivariate model. We excluded children aged less than 15 years from this part of the analysis because the model included variables related to sexual behaviour.

## Results

Overall, 51 642 patients were offered HCT between 1 November 2004 and 28 February 2006. Of these, 50 649 (uptake rate 98%) accepted. The uptake rate ranged from 94–99% between the hospital units, except that the STD clinic had a low rate of 84%. The accessibility of HIV testing was high in all wards and clinics, with 90–100% of eligible patients being offered HCT. Among the 993 patients who declined testing, 247 (25%) said they did not wish to be tested, 207 (21%) said they would get tested after their current illness improved, 198 (20%) said they had previously tested HIV-positive, 65 (7%) said they had tested HIV-negative numerous times, 54 (6%) said that testing offered no benefits, 43 (4%) said they had given blood samples too many times, and 30 (5%) wanted to consult their spouses before testing. Other reasons for declining HCT included not being emotionally prepared, fear of an HIV-positive result, being confident they were not HIV-infected, and lack of time. There were no significant demographic differences between patients who declined and those who accepted testing.

During post-test counselling sessions, 2194 patients said they had previously tested HIV-positive but there was no documentation and they were not receiving care. Overall, 48 454 patients had never tested HIV-positive. The majority (61%) were female, 47% were married, and their median age was 27 years (range 3 months to 106 years). Of these 48 454, 12 107 (25%) were HIV-positive and 39 037 (81%) had never been tested for HIV. Among the 39 037 being tested for the first time, 11 108 (28%) tested HIV-positive. Of the 9102 who reported that they had

previously tested HIV-negative, 850 (9%) were HIV-positive. Among 7156 children less than 15 years of age, 1024 (14%) were HIV-positive and 6961 (96%), which included all those with an HIV infection, had never been tested before. The prevalence of HIV among the patients tested varied between the wards and clinics and was highest among medical inpatients (Table 1). When patients who were previously known to have an HIV infection were included, the overall HIV burden in all inpatient wards was 38%. The greatest burdens were observed in cancer wards (54%), medical wards (46%) and emergency medical wards (45%); the lowest burdens were seen in paediatric wards (18%), obstetrics and gynaecology wards (16%), and surgical wards (13%).

Of the 10 439 family members who were offered HCT, 9720 (93%) accepted. Family members tested included 1510 spouses, 4122 mothers and 683 fathers of paediatric patients, 905 children belonging to patients, and 2500 other household members. Of these, 7100 (73%) had never been tested. The prevalence of HIV among family members was 20% ( $n = 1983$ ). Among 1510 spouses of patients, 447 (30%) were HIV-positive, as were 862 (21%) mothers of paediatric patients and 127 (14%) children belonging to patients. Of 1213 couples (i.e. 2426 individuals), one member of which was a patient, 224 (19%) were HIV-discordant; in 69% of discordant couples, the patient was seropositive while the spouse tested negative.

The majority of patients (97%) and family members (99%) who were tested received their results in hospital. Of the 1514 patients who did not receive their results in hospital, 39% were discharged before receiving them, 29% died before receiving them, 22% had post-test counselling and results disclosure deferred because of the severity of their illness, and 10% refused to receive their results although they had initially agreed to testing.

Bivariate analysis showed that HIV infection in patients was associated with age (highest in the 31–40 age group), being married, divorced or widowed, having an HIV-positive partner, or having a spouse of unknown HIV status (Table 2). Patients who reported no sexual contact in the previous 12 months also had an increased risk of HIV infec-

tion. Independent predictors of HIV infection included age, hospital ward, partner's HIV status and marital status. Widowed patients were more than four times as likely to have an HIV infection as those who had never been married, while separated patients were more than three times as likely and married patients were 1.7 times as likely. In addition, patients who said they did not know the HIV status of their sexual partners were three times as likely to have an HIV infection. Medical inpatients were more than three times as likely to have an HIV infection as surgical inpatients (Table 2).

## Discussion

This study demonstrates that providing free HCT was feasible and highly acceptable at two large public hospitals in Uganda. Routine HCT identified a large number of undiagnosed HIV infections and HIV-discordant partnerships among patients and their families. Similarly, other pilot programmes have shown that more HIV infections can be identified by routine HCT than by testing based on risk assessment and clinical diagnosis.<sup>22,23,28,30,31</sup> In our programme, 81% of patients had never been tested before. Access to HIV testing for children was even more limited.

The high uptake of HCT may have been because it was free. In an assessment carried out at Mulago hospital before implementation of this programme, the most common reason for not undergoing testing during hospitalization, cited by 42% of patients, was a lack of money.<sup>25</sup> High uptake may also be associated with improved access to HIV care and treatment in Uganda. Free home-based HCT programmes in the country have a similarly high testing uptake.<sup>12,16,32</sup> A population-based survey in Botswana also showed that most people were in favour of routine HIV testing,<sup>33</sup> and the introduction of testing in women receiving antenatal care in Botswana resulted in a high uptake.<sup>28</sup>

In addition, hospitals also provided a good setting for effective HIV diagnosis in patients' family members. Although married people are not traditionally highlighted as a risk group, they had an increased risk of HIV infection. Moreover, the risk was higher in patients who did not know the HIV status of their sexual partners.

Table 1. Number of patients undergoing HIV testing, number who tested HIV-positive, and HIV seroprevalence for different patient variables<sup>a</sup>

Patient variable	Number (percentage) tested by variable <i>n</i> = 48 454	Number HIV-positive in each category <i>n</i> = 12 107	HIV prevalence in each category <sup>b</sup> (%)
<b>Sex</b>			
Female	29 694 (61)	7 575	26
Male	18 760 (39)	4 532	24
<b>Age</b>			
0–5 years	5 355 (11)	761	14
6–14 years	1 801 (4)	263	15
15–20 years	6 233 (13)	754	12
21–30 years	16 553 (34)	4 486	27
31–40 years	9 710 (20)	3 751	39
41–50 years	4 670 (10)	1 520	33
51–60 years	2 143 (4)	387	18
61+ years	1 989 (4)	185	9
<b>Marital status</b>			
Never married	17 397 (36)	2 682	15
Married or cohabiting	22 753 (47)	5 863	26
Separated or divorced	4 664 (10)	1 991	43
Widowed	3 640 (7)	1 571	43
<b>Education</b>			
None	11 314 (23)	2 341	21
Primary	21 020 (43)	6 059	29
Secondary	11 969 (25)	3 044	25
Tertiary	4 151 (9)	663	16
<b>Religion</b>			
Christian	41 582 (86)	10 506	25
Muslim	6 841 (14)	1 593	23
Other	31 (0.1)	8	26
<b>Previously tested for HIV<sup>c</sup></b>			
Yes	9 347 (19)	960	10
No	39 037 (81)	11 108	28
<b>Result of last test<sup>c</sup></b>			
Negative	9 102 (98)	850	9
Inconclusive	155 (2)	64	41
<b>Partner's HIV status (patients aged more than 15 years)<sup>c</sup></b>			
Positive	804 (4)	454	56
Negative	2 970 (13)	317	11
Unknown	19 126 (83)	4 865	25
<b>Most recent partner type</b>			
Spouse	19 162 (83)	4 770	25
Steady partner	2 701 (12)	590	22
Casual partner	1 061 (5)	281	26
<b>Hospital clinic or ward</b>			
Casualty or emergency	2 457 (5)	740	30
Medical inpatient	10 563 (22)	3 701	35
Obstetrics and gynaecology	4 870 (10)	636	13
Medical outpatient	14 799 (31)	4 471	30
Dermatology	3 021 (6)	754	25
Sexually transmitted disease	979 (2)	146	15
Paediatric inpatient	6 640 (14)	979	15
Surgical	1 027 (2)	126	12
Other	4 098 (8)	554	14

<sup>a</sup> The units with very small patient numbers had only recently started providing routine testing and counselling whereas other units, such as medical wards, had been providing it for over 1 year.

<sup>b</sup> Overall prevalence, 25%.

<sup>c</sup> Some data missing.

Among couples who were tested, 100% of the HIV-negative members of discordant couples were previously unaware of their discordant status. These findings highlight the need to promote HIV testing for couples. Offering HCT to patients attending hospital saved them both time and transport expenses. Routine HCT can also reduce delays in diagnosis and improve the clinical management of HIV-infected patients.

The HIV prevalence rates observed here may not be representative of the overall HIV prevalence in the two hospitals because the HCT programme started with wards and clinics in which the prevalence was thought to be high.

Quick and efficient referral to care is necessary to reduce morbidity and mortality in patients who are HIV-positive. Because testing was carried out in a hospital, it was possible to start providing care immediately, with referrals for follow-up care after discharge. However, with the planned expansion of routine HCT in Uganda, thousands of HIV-infected individuals will be identified and existing HIV clinics may be overwhelmed. This increase in routine HCT should be coupled to an expansion of HIV/AIDS follow-up care and treatment services. Increasing routine HCT also means that HIV testing must become a core component of hospital services. Health-care workers will have to be trained and involved in areas such as pretest and post-test counselling and specimen collection and testing, as well as carrying out the usual diagnostic work-ups and routine patient care. The use of trained lay and peer health-care providers, including other HIV-infected individuals, to assist with HCT should be evaluated because human resources at Ugandan health-care units are limited. Confining counselling to the provision of key prevention and care messages would decrease the time, personnel and space required. However, research will be needed to establish whether this will have a negative impact on risk reduction and linkage with care, or will threaten the patient's right to confidentiality and privacy and to decline testing.

In circumstances in which it is not possible to provide routine HCT for all wards and clinics, HCT could, at a minimum, be offered to all patients in wards and clinics where the HIV burden is high; in our case, these were medical

Table 2. Number of patients aged more than 15 years who tested HIV-positive and adjusted odds ratio for testing positive for different patient variables<sup>a</sup>

Patient variable	Number (percentage) testing HIV-positive <i>n</i> = 10 428 (26%) <sup>b</sup>	Adjusted odds ratio (95% confidence interval)	<i>P</i> -value <sup>c</sup>
<b>Sex</b>			
Female	6672 (26)	0.98 (0.93–1.04)	0.57
Male	3756 (26)	1.00 (reference)	–
<b>Age</b>			
15–20 years	707 (12)	1.00 (reference)	–
21–30 years	4259 (27)	2.13 (1.94–2.33)	< 0.0001
31–40 years	3512 (38)	2.58 (2.34–2.86)	< 0.0001
41–50 years	1414 (32)	1.63 (1.45–1.82)	< 0.0001
51–60 years	359 (18)	0.62 (0.54–0.73)	< 0.0001
61+ years	177 (9)	0.24 (0.20–0.29)	< 0.0001
<b>Marital status</b>			
Never married	1595 (16)	1.00 (reference)	–
Married or cohabiting	5493 (25)	1.67 (1.54–1.82)	< 0.0001
Separated or divorced	1902 (42)	3.17 (2.90–3.47)	< 0.0001
Widowed	1438 (42)	4.48 (4.02–4.99)	< 0.0001
<b>Education</b>			
None	1439 (26)	1.00 (reference)	–
Primary	5500 (30)	1.20 (1.10–1.28)	< 0.0001
Secondary	2887 (25)	1.12 (1.03–1.21)	0.01
Tertiary	602 (15)	0.61 (0.55–0.69)	< 0.0001
<b>Religion</b>			
Christian	9079 (26)	1.00 (reference)	–
Muslim	1341 (25)	0.92 (0.85–0.98)	0.02
Other	8 (32)	1.41 (0.57–3.46)	0.46
<b>Partner's HIV status</b>			
HIV-negative	317 (11)	1.00 (reference)	–
HIV-positive	454 (56)	8.83 (7.32–10.65)	< 0.0001
Unknown	4859 (25)	3.00 (2.65–3.40)	< 0.0001
No partner for 12 months	4793 (29)	2.72 (2.38–3.11)	< 0.0001
<b>Hospital clinic or ward</b>			
Surgical	124 (13)	1.00 (reference)	–
Emergency medical ward	732 (31)	2.45 (1.97–3.04)	< 0.0001
Medical inpatient	3072 (35)	3.39 (2.78–4.15)	< 0.0001
Medical outpatient	4345 (30)	2.20 (1.80–2.69)	< 0.0001
Obstetrics and gynaecology	610 (13)	0.75 (0.60–0.93)	0.01
Dermatology	730 (26)	1.87 (1.51–2.32)	< 0.0001
Other	815 (15)	1.05 (0.85–1.29)	0.67

<sup>a</sup> Patients aged less than 15 years were excluded because the multivariate model included variables related to sexual behaviour.

<sup>b</sup> Overall, 26% of the 39 603 patients aged more than 15 years were HIV-positive.

<sup>c</sup> Multivariate analysis.

inpatient and outpatient units, emergency wards and STD clinics. Although paediatric, obstetrics and gynaecology, and surgical units are not usually regarded as being at risk of HIV infection, our findings show that the prevalence was 15%, 13% and 12% in these three units, respectively. This is not surprising as the prevalence of HIV in Uganda

is 6.4%.<sup>16</sup> Moreover, it highlights the need to include all hospital patients in areas where the HIV prevalence is high. Following an HCT policy revision and successful pilot programmes in Uganda, routine HIV testing in health-care settings has been incorporated into the five-year HIV strategic plan, both advocacy of and resources for an increase

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in health-care provider-initiated HCT have grown, and HCT provision is currently being expanded.

Our findings show that offering HCT routinely is feasible and may increase linkage to HIV care and treatment for many individuals with HIV infections. Routine HCT should be an integral component of any expansion in HIV prevention, care and treatment services in Africa and other areas where the prevalence of HIV is high. ■

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## Résumé

### Acceptabilité du dépistage systématique et des conseils concernant le VIH/sida et détermination de la séroprévalence du VIH dans des hôpitaux ougandais

**Objectif** Les établissements hospitaliers de Mulago et de Mbarara sont de grands hôpitaux tertiaires d'Ouganda, dans lesquels la charge de VIH/sida est importante. Jusqu'à récemment, le dépistage du VIH n'était disponible que sur demande et contre paiement. Depuis novembre 2004, un dépistage du VIH et des conseils sont proposés de manière systématique et gratuite afin d'améliorer la couverture du dépistage et la prise en charge clinique des patients. Un dépistage du VIH a été proposé à tous les patients des unités participantes n'ayant jamais été testés positifs pour ce virus. Ce dépistage a également été proposé aux membres de la famille venus à l'hôpital.

**Méthodes** Les données recueillies dans les 25 unités et services hospitaliers participants entre le 1<sup>er</sup> novembre 2004 et le 28 février 2006 ont été analysées pour déterminer le taux d'utilisation du dépistage et la séroprévalence du VIH chez les patients et les membres de leur famille.

**Résultats** Parmi les 51 642 patients auxquels un dépistage avait été proposé, 50 649 (98 %) ont accepté. Parmi les patients

jamais testés positifs auparavant, la prévalence globale du VIH était de 25 %, ce dépistage étant le premier pour 81 % d'entre eux. C'est parmi les patients en hospitalisation médicale qu'on a relevé la plus forte prévalence du VIH (35 %) et parmi ceux hospitalisés en chirurgie, que ce paramètre était le plus bas (12 %). Chez les 39 037 patients jamais dépistés auparavant, la prévalence du VIH était de 28 % et chez ceux précédemment testés négatifs, de 9 %. Parmi les 10 439 membres de la famille auxquels avait été proposé un dépistage, 9720 (93 %) ont accepté. La prévalence du virus chez les membres de la famille était de 20 %. Parmi les 1213 couples dépistés, 224 (19 %) étaient sérodiscordants.

**Conclusion** Dans deux grands hôpitaux ougandais, le dépistage systématique du VIH et les conseils au sujet du VIH/sida se sont révélés très acceptables et ont permis d'identifier de nombreuses infections à VIH encore non diagnostiquées et des partenaires sérodiscordants parmi les patients et les membres de leur famille.

## Resumen

### Aceptabilidad del asesoramiento y las pruebas del VIH sistemáticas y seroprevalencia del VIH en hospitales de Uganda

**Objetivo** Los hospitales de Mulago y de Mbarara son dos grandes hospitales terciarios de Uganda que presentan una elevada carga de infección por VIH/SIDA. Hasta hace poco, las pruebas de detección del VIH sólo se realizaban a petición de los interesados y eran de pago. Desde noviembre de 2004 se viene ofreciendo asesoramiento y pruebas de detección del VIH gratuitas y sistemáticas a fin de mejorar la cobertura de análisis y el manejo clínico de los pacientes. Se ofrecieron las pruebas del VIH a todos los pacientes de las unidades participantes que no habían dado antes resultados positivos para el VIH, y también se ofreció la posibilidad de someterse a las pruebas a los familiares de los pacientes.

**Métodos** Se analizaron los datos reunidos en las 25 salas y consultorios participantes entre el 1 de noviembre de 2004 y el 28 de febrero de 2006 a fin de determinar la tasa de uso de las pruebas y la seroprevalencia del VIH entre los pacientes y sus familiares.

**Resultados** De los 51 642 pacientes a los que se ofrecieron pruebas de detección del VIH, 50 649 (98 %) aceptaron someterse

a ellas. Entre los que no habían dado antes resultados positivos, la prevalencia global de infección por VIH fue del 25%; el porcentaje de personas analizadas por vez primera fue del 81%. La prevalencia más alta correspondió a los pacientes ingresados clínicos (35%), y la más baja a los enfermos ingresados quirúrgicos (12%). La prevalencia de infección por VIH fue del 28% entre los 39 037 pacientes que no se habían sometido nunca a esos análisis, y del 9% entre los que habían obtenido resultados negativos en pruebas anteriores. De los 10 439 familiares a los que se ofreció la posibilidad de someterse a las pruebas, 9720 (93%) aceptaron; la prevalencia entre ellos fue del 20%. Entre las 1213 parejas analizadas, 224 (19%) presentaron resultados discordantes en su serología VIH.

**Conclusión** En dos grandes hospitales ugandeses, el asesoramiento y las pruebas sistemáticas de detección del VIH fueron ampliamente aceptados, y gracias a ello se identificó un gran número de infecciones por VIH no diagnosticadas hasta el momento y de casos de discordancia serológica entre los pacientes y sus familiares.

## ملخص

## مقبولية تلقّي المشورة والاختبار الروتيني لفيروس العوز المناعي البشري، وإيجابية المصلية في مستشفيات أوغندا

25%، وكان 81% منهم قد أجروا الاختبار للمرة الأولى. وقد لوحظ المعدل الأكثر لانتشار بين المرضى الداخليين في الأقسام الباطنية (35%) والمعدل الأكثر انخفاضاً بين المرضى الداخليين في الأقسام الجراحية (12%). وقد بلغ معدل انتشار فيروس العوز المناعي البشري 28% بين الـ 39 037 مريضاً الذين لم يسبق لهم إجراء الاختبار من قبل، و9% لدى مرضى سبق لهم إجراؤه وكانت نتيجته سلبية لديهم. ومن بين 10 439 من أفراد أسر المرضى الذين عُرض عليهم إجراء الاختبار، وافق 9720 منهم (93%) على إجرائه. وبلغ معدل انتشار إيجابية فيروس العوز المناعي البشري بينهم 20%. ومن بين 1213 من الأزواج الذين أجروا الاختبار كان 224 زوجاً (19%) بوضوح متخالف (أحدهما سلبى والآخر إيجابى).

**الاستنتاج:** حظي تلقّي المشورة والاختبار الروتيني لفيروس العوز المناعي البشري بقبول كبير في اثنتين من المستشفيات الكبيرة في أوغندا، وأدى إلى كشف الكثير ممن لم يسبق أن شخّصت لديهم العدوى بفيروس العوز المناعي البشري، والكثير من العلاقات المتخالفة (أحد أطرافها سلبى والآخر إيجابى الفيروس) وذلك بين المرضى وبين أفراد أسرهم.

**الهدف:** تعتبر مستشفيات منطقتي مولاغو ومبراتا من المستشفيات التخصّصية للمناطق الأوغندية التي تنوء بعبء ثقيل من الإيدز والعدوى بفيروسه. وحتى وقت قريب كان اختبار فيروس العوز المناعي البشري لا يتوافر إلا بناءً على طلب لإجرائه ودفع تكاليفه. ومنذ شهر تشرين الثاني/نوفمبر 2004، أصبح من المتوافر إجراء الاختبار الروتيني لفيروس العوز المناعي البشري وتلقي المشورة حوله، بُغية تحسين كل من التغطية بالاختبارات والتدبير السريري للمرضى. وأتيح الاختبار لجميع المرضى في الوحدات المشتركة، ممن لم يثبت لديهم من قبل إيجابية اختبار فيروس العوز المناعي البشري، كما أتيح كذلك لأفراد أسرهم الذين فحصوا في المستشفى.

**الطريقة:** جمع الباحثون المعطيات من 25 جناحاً وعيادة مشاركة في الفترة بين 1 تشرين الأول/نوفمبر 2004 و28 شباط/فبراير 2006، وحللوها للتعرف على معدل الإقبال على الاختبار ومعدل الإيجابية المصلية بين المرضى وبين أسرهم.

**الموجودات:** من بين 51 642 مريضاً عُرض عليهم إجراء اختبار فيروس العوز المناعي البشري، قبِلَ 50 649 مريضاً (98%) إجراء هذا الاختبار. ومن بين المرضى الذين لم يكونوا من قبل إيجابيين للفيروس، بلغ معدل انتشاره

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