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Original article

Feasibility and acceptability of rapid HIV test screening (DEPIVIH) by French family physicians[☆]

DEPIVIH : faisabilité et acceptabilité de la pratique du test rapide d'orientation diagnostique du VIH en médecine générale en France

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Abstract

Background. – In France, around 50,000 people were unaware of their HIV positivity at the end of 2008. The latest guidelines recommend routine screening of all adults. Family physicians have been identified as key persons for this new policy. Rapid HIV tests (RHT) have been proposed as an alternative to conventional blood tests.

Objectives. – The authors assessed the feasibility and acceptability of RHT test based screening in French community practice.

Method. – We made a prospective interventional study of the BioMerieux VIKIA[®] HIV 1/2 RHT among French family physicians. Data on the RHT was posted in the physician's waiting room.

Results. – Sixty-two French physicians, mostly family practitioners, included 383 patients with a mean age of 36.2 years, from June to October 2010. Twenty-two percent (83) of these patients had never been tested for HIV. The RHT was proposed and 382 tests were accepted and performed (acceptability rate of 99.7%). Sixty-five percent of the tests were made on the patient's request. The tested population represented 1.5% of consulting patients during the study period (feasibility rate). Patients were quite satisfied but physicians less so. Test steps and capillary blood sampling were the main source of difficulty mentioned. At the end of the study, 59% of physicians were ready to continue using RHT in their daily practice.

Conclusion. – Routine RHT screening in community practice is feasible and well accepted by patients. It was the first screening test for 22% of our patients. Its feasibility was limited by capillary blood sampling technique and time constraints during consultation.

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Keywords: HIV; Primary care; Rapid diagnostic test; Screening

Résumé

Contexte. – Cinquante mille personnes ignoraient en France leur séropositivité VIH. Les dernières recommandations envisagent un dépistage généralisé de tous les adultes. Les médecins généralistes sont des acteurs centraux de cette stratégie. Le test rapide d'orientation diagnostique (TROD) VIH est proposé comme alternative à la sérologie.

Objectifs. – Mesurer les taux de réalisation et l'acceptabilité du dépistage par TROD VIH en médecine de ville.

[☆] Study presented June 23, 2011 at the 5th Congress of family medicine, Nice, E-poster N° CDD077 at the 6th Congress of the International Aids Society, Rome, Oral communication on October 14, 2011 at the 13th Congress of the European AIDS Clinical Society (EACS), Belgrade, Supported by the BioMerieux society and the Gilead laboratory.

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Méthode. – Étude prospective interventionnelle d'évaluation du TROD VIKIA® HIV 1/2 de BioMerieux en consultation. L'information sur le TROD VIH est affichée en salle d'attente.

Résultats. – De juin à octobre 2010, 62 médecins, en majorité généraliste, ont inclus 383 adultes âgés en moyenne de 36,2 ans. Parmi eux 22 % (83) n'avaient jamais été dépistés. Le TROD a été proposé avec une acceptabilité excellente à 99,7 %, un seul l'a refusé. Le TROD est demandé par les patients dans 65 % des cas. Le taux de réalisation (faisabilité) atteint 1,5 % des patients adultes qui consultent ignorant leur statut pour le VIH. Les patients sont très satisfaits de la procédure. Pour les médecins moins satisfaits, étapes du test et technique de recueil du sang capillaire constituent les principales difficultés. En fin d'étude, 59 % d'entre eux se disent prêts à continuer d'utiliser le TROD VIH dans leur pratique.

Conclusion. – Le dépistage par TROD VIH en médecine de ville est réalisable et bien accepté par les patients. Premier test pour 22 % de nos patients, sa faisabilité est limitée par les difficultés de prélèvement et sa chronophagie dans la consultation.

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Mots clés : Dépistage ; Soins primaires ; Test rapide ; VIH

1. Introduction

In France, at the end of 2008 it was estimated that 152,000 people lived with HIV (135,000 to 170,000). Among these, 50,000 (31,000 to 68,000) ignored their seropositivity or were not followed-up medically [1,2]. Seven thousand HIV infections have been identified every year since 2006. Among the 6500 discovered in 2008, 29% were late (CD4 < 200/mm³ and/or AIDS stage AIDS on diagnosis of HIV infection) [2]. In March 2012, this data was reviewed. In 2010 it was estimated that between 24,000 to 29,000 people living with HIV were non-diagnosed (i.e. 20% of people living with HIV). This would be the cause for 43% of new infections [24].

Responsibility, volunteering, accessibility, and anonymity have ruled screening since the beginning of the epidemic. The risk taken remains the trigger for requiring screening, and counselling.

Five million tests are performed every year in France, giving a screening rate of 77 for 1000 inhabitants [3] placing France at the second rank in Europe [4]. Seventy-five percent of HIV blood tests in France are performed by community laboratories [5].

In 2006, the National Council for AIDS (French acronym = CNS) broadened its proposition for tests and limited counselling when it was an obstacle to screening [4]. Its report supported a routine use of rapid diagnosis tests for HIV (RHT). The French National Authority for Health (French acronym = HAS) recommended in 2008 and 2009 [6,7] to broaden screening opportunities in France by systematically proposing a test to all people from 15 to 70 years of age, even without risk behavior. The objectives were an earlier detection of the infection, decreasing delay before medical management, and hopefully decreasing a person's risk behavior by letting him know about his serologic status [6,7]. The authors of a recent French study reported the cost-benefit effectiveness of such a policy [8]. RHT were proposed as a new tool for this strategy. These rapid tests should facilitate access to screening for populations with an inadequate access to the current system because of overexposure to risk or because of a limited local offer, and should improve access to screening results [7]. Their use in community practice is considered.

An RHT is a single test for the detection of antibodies (Ab) anti-HIV 1 and anti-HIV 2, easy to use, with result available

immediately. It may be used with whole blood, plasma, serum, or saliva.

Several authors answered the CNS and HAS call for evaluation, by assessing the pertinence of RHT use in community practice [9–11] and in hospital emergency units [12]. We decided to make a survey on community practitioners in France.

1.1. Objective

The authors of the rapid HIV test screening (French acronym = DEPIVIH) study had for objective to assess the acceptability and the rate of use (feasibility) of a new screening procedure for HIV in an adult population using the RHT, in community practice, during a consultation.

2. Material and method

The survey was proposed to 95 physicians practicing in their own office or in a healthcare center, belonging to eight non-specialized networks, two specialized HIV networks, and one group created for this study in Toulouse. Ten French subdivisions and 34 cities were covered.

The members of the French Community and Hospital HIV Research group (French acronym GERVIH), promoting the study, initiated and coordinated the DEPIVIH until the end. They trained physician investigators in their region to perform the RHT and how to react according to the test results. The physician investigators were not chosen randomly or by panel for pragmatic, and financial reasons. The data collected by the coordinators cross-matched with consultation of the site <http://ameli-direct.ameli.fr> revealed that 21 of the physicians also practiced in a hospital (22.1%). The investigators posted a DEPIVIH sheet in the waiting room informing patients about the RHT and left flyers edited by the National Institute of Prevention and Education in Healthcare (French acronym = INPES) [13].

Adult patients asking for the RHT were asked to be included in the study as well as those for whom the physician thought there was an indication for the RHT, according to current recommendations [7].

Age below 18 years, absence of healthcare insurance coverage, impossibility to obtain a written consent, being under guardianship were criteria of exclusion.

An information notice explained how the test was performed and the meaning of RHT results, complementing the information and advice given by the physician investigator. Every patient included was asked to sign his informed consent.

The following patient data was collected during the consultation: history, previous testing for HIV, reason for requesting the current RHT, performing the RHT or not, result, risk behavior in the previous 3 months. All tested patients filled out an anonymous self-administered questionnaire on satisfaction.

We used the RHT VIKIA® HIV 1/2 given by BioMérieux®. Total capillary blood was sampled at the fingertip according to a strict protocol, after sticking with a single use lancet; the blood drop fell by gravity into pipette marked at 75 µL (Microsafe tube 75 µL). The sample was placed in the kit well then a drop of dampening solution was added according to the manufacturer's recommendations. The results were available 30 minutes later.

If the RHT result was negative and in case of risk behavior in the 3 previous months, HIV serology on blood samples was prescribed and performed in a laboratory. A combined ELISA was performed according to the general recommendations in case of recent exposure [7].

If the RHT result was positive, the physician had to tell the results to the patient and repeat the sampling at the laboratory with Western Blot, combined ELISA, or RNA HIV if necessary until confirming the diagnosis of HIV infection.

If the RHT result was not valid, the physician had to prescribe testing for HIV serology in a laboratory.

Every patient tested received a result form with his identity, dated and signed, with the RHT characteristics and physician's identification code. One copy was given to the patient and the physician kept another copy for traceability.

The two main criteria of evaluation were: rate of tests used (or feasibility) defined by the number of RHT performed compared to the number of adults not known as HIV carriers, having consulted physician during the period of inclusion. The rate of acceptability was defined by the number of patients accepting to be tested by the RHT after presentation by the physician compared to the number of patients included.

The secondary criteria of evaluation were: the rate of patients never tested for HIV before, among those having accepted the RHT; the patient's satisfaction after testing; the physician's satisfaction for test use; and collection of problems encountered.

Every investigator documented in real time the difficulties met when performing each RHT. The investigator was asked to fill out another self-administered questionnaire on global satisfaction at the end of the study.

The statistical data analysis was made with the SAS® software version 9.1 (North Carolina, USA). The descriptive analysis of qualitative variables was made on the number of patients and the frequency of each category. The quantitative variables were the number of answers, the average, the range, and the median. The comparative analysis of qualitative data was made with Pearson's Chi² test and Fischer's exact test (if Pearson's Chi² test could not be used). The quantitative variables were compared with Student's *t* test.

The DEPIVIH study was given its agreement by the Committee for Patient Protection in trials LYON SUD-IS II on January

7, 2010 (registered for Afssaps as N° 2009-AOD860-57). The National Commission on Computer Data and Liberties gave its agreement on October 22, 2009 (N° 909261).

The study started on June 17, 2010 and finished on October 20, 2010. The two regulations on RHT used were published on May 28 and November 9, 2010 [22,23].

3. Results

3.1. Population

Ninety-five private practice physicians in six French regions (Alsace, Aquitaine, Île de France, Midi-Pyrénées, Provence Alpes Côte d'Azur and Rhône-Alpes) participated in the study; 84 (88.4%) were family physicians. The demographic data was collected for 72 physicians (75.8%). The physicians' group included 59.2% men, average age 48.7 years, practicing mainly in urban settings (65, 91.5%) and using lower rates (61, 91%). An average of 13 adult patients positive for HIV (range: 0–150) were examined in consultation by the investigators over the 30 study days. The median number of HIV positive patients examined in consultation in 1 month was 4.5. Half of the investigators saw at least four HIV positive patients per month, the other half more than five.

Sixty-two of the 95 physicians had included at least one patient by the end of the study (participation rate of 65%). They included 383 patients. Twenty-three physicians (24%) performed the 10 supplied tests. In the group of 21 private practice physicians also working in hospital, 71 RHT were used and 13 physicians did not use any. The 73 physicians with an exclusively private practice performed 311 RHT, but 20 physicians did not use any. The demographic characteristics and history of testing for HIV of the studied population are listed in Table 1.

3.2. Rate of use and acceptability of the rapid HIV tests

The physicians used on average 5.6 RHT (range: 0–12) during the inclusion period and reported having seen in consultation 371 adult patients not infected by HIV. The physicians thus tested an average of 1.5% (5.6/371) of consulting adults not known as positive for HIV (rate of use).

Three hundred and eighty-two of the 383 patients included accepted using the test presentation by the physician investigator, giving an acceptability rate of 99.7%.

3.3. Data on tests used

Among the patients, 64.7% asked for the RHT (Table 2).

None of the 382 RHT used was positive. Thirty (7.9%) results were not valid.

The investigators mentioned difficulty in performing the test 157 times (41.9%). The main difficulties were collecting blood in the pipette, mentioned 143 times, a no readable result for 10 RHT, and difficulty in handling the reagent for 2 RHT. Other difficulties mentioned by the investigators were formation of an air bubble in the sampling pipette (4) or in the kit

Table 1
DEPIVIH study demography according to inclusion criteria.
Population étudiée respectant les critères d'inclusion.

	n = 383
Sex	
Women	187 (48.8%)
Men	196 (51.2%)
Patient age (years)	
Number (answer rate)	379 (99.0%)
Average (range)	36.2 (13.5)
Median/Min/Max	34.0/18.0/86.0
Age (years)	
ND	4
<= 20 years	32 (8.4%)
] 20–30] years	125 (33.0%)
] 30–40] years	101 (26.6%)
] 40–50] years	65 (17.2%)
] 50–60] years	33 (8.7%)
] 60–70] years	14 (3.7%)
> 70 years	9 (2.4%)
Was the patient previously tested for HIV?	
Yes	299 (78.1%)
No	84 (21.9%)
Patients previously tested for HIV	n = 299
Time since previous test (years)	
Number (answer rate)	264 (88.3%)
Average (range)	2.9 (3.2)
ND	35 (11.7%)
<= 1 years	115 (38.5%)
] 1–2] years	51 (17.0%)
] 2–3] years	26 (8.7%)
] 3–4] years	15 (5.0%)
> 4 years	57 (19.1%)
Motivation for undergoing the latest test	
ND	8
Patient's request	207 (71.1%)
Physician's prescription	62 (21.3%)
Other	22 (7.6%)

ND: results not documented.

well (2), coagulation of blood in the pipette (1), no migration after placing blood and a drop of dampening solution in the well (2).

3.4. Question on risk behavior in the 3 months before the test

If a negative RHT result was given to the patient, a question on risk behavior in the 3 months before the test was asked to 87.9% of screened patients. Among the 284 patients that were questioned, at least one risk behavior was noted in 148 (52.1%).

The reported risk behaviors were: one or several non-protected intercourse(s) (n = 129, 87.8%), the use of IV drugs (n = 9, 6.1%), a history of blood transfusion (n = 4, 2.7%), a ruptured condom (6), partner of an HIV positive person (2), multipartners (2), doubt on the partner's faithfulness (2), risky occupation (1), sharing a sniffer straw (1), and tattoos/piercings (6).

Table 2
Rapid HIV testing data (RHT).
Données sur les TROD VIH réalisés par les médecins.

Population respecting the criteria of inclusion	n = 383
RHT performed	
ND	6
Patient's request	244 (64.7%)
On your indication	133 (35.3%)
RHT used	
Yes	382 (99.7%)
No	1 (0.3%)
When the test was performed	n = 382
Result RHT	
ND	4
Negative	348 (92.1%)
Not valid	30 (7.9%)
Difficulty to perform RHT	
ND	7
Yes	157 (41.9%)
No	218 (58.1%)
Details of the difficulties met	n = 157
Difficulties to sample blood	143 (91.7%)
Difficulties to handle test reagents	2 (1.3%)
Results not readable	10 (6.4%)
No difficulty	21 (13.5%)

ND: results not documented.

3.5. Patients never tested for HIV before

Eighty-four of the 383 patients included (21.9%) had never been tested for HIV before (Table 3). This sub-group included 47 men and 37 women with an average age of 38.7 years. The rate of patients never tested for HIV before was significantly higher in patients under 20 years of age (15.9% vs. 6.4%, $P < 0.0001$) and over 60 years of age (18.3% vs. 2.7%, $P < 0.0001$).

3.6. Patient's opinion of the test

Three hundred and sixty-five self-questionnaires given to the patients after the test but before results were processed (Table 4). Most patients (296, 81.5%) did not know about rapid tests.

Three hundred and thirty (93.8%) mentioned they would recommend using an RHT to one of their relatives and 349 (96.9%) preferred obtaining results during the consultation rather than later. More than 80% found the RHT less painful than normal blood sampling (visual analogic pain scale average at 1.1/10).

Finally, 64 (17.7%) patients admitted not having undergone testing for HIV prescribed by a physician.

3.7. Physician's opinion of the test

Seventy-two investigators completed the test evaluation questionnaire, 41 (61.2%) said they were very satisfied or satisfied with the RHT they had used (Table 5). Giving the RHT result during the consultation was as or less difficult than giving results of the usual blood tests for 52 (77.6%). The RHT procedure time was satisfactory for 45 (66.1%). The difficulties encountered

Table 3
Comparison of patients previously tested for HIV with patients tested for the first time (with the RHT).

Comparaison entre la population ayant réalisé antérieurement un test de dépistage VIH et la population nouvellement testée par le RHT.

Have you ever been tested for HIV?	Yes	No	<i>p</i>
<i>Patients</i>	299	84	
<i>According to gender</i>			
Men	149 (49.8%)	47 (56%)	0.3215 ^a
Women	150 (50.2%)	37 (44%)	
<i>According to age</i>			
ND	2	2	
≤ 20 years	19 (6.4%)	13 (15.9%)	<0.0001 ^a
] 20–30] years	98 (33.0%)	27 (32.9%)	
] 30–40] years	91 (30.6%)	10 (12.2%)	
] 40–50] years	56 (18.9%)	9 (11.0%)	
] 50–60] years	25 (8.4%)	8 (9.8%)	
] 60–70] years	6 (2.0%)	8 (9.8%)	
> 70 years	2 (0.7%)	7 (8.5%)	
<i>Risk behavior in the previous 3 months for patients with negative test results</i>	271	77	
<i>Was patient history taken?</i>			
ND	22	3	
Yes	228 (91.6%)	56 (75.7%)	0.0002 ^a
No	21 (8.4%)	18 (24.3%)	
<i>Questioned patients</i>	228	56	
<i>Were some risks identified?</i>			
Yes	128 (56.1%)	20 (35.7%)	0.0061 ^a
No	100 (43.9%)	36 (64.3%)	
<i>Patients with identified risks</i>	128	20	
<i>Detail of identified risks</i>			
Non-protected intercourse	111 (87.4%)	18 (90.0%)	1.000 ^b
Illegal drug injection with non sterile needles	5 (3.9%)	4 (20.0%)	0.0204 ^b
Blood transfusion	–	4 (20.0%)	0.0003 ^b
Piercing/tattoos	4 (3.1%)	2 (10.0%)	0.1887 ^b
Others	15 (11.8%)	1 (5.0%)	0.6980 ^b

ND: results not documented.

^a Chi² test.

^b Fisher's exact test.

were mostly related to collecting blood in the pipette (60.8%) and to the time consuming procedure (17.6%).

More than half (59.4%) of the questioned physicians answered they would continue using the RHT in their practice. Those who did not wish to continue using it gave as the main reason the difficulty to perform the test, followed by a lack of time during consultation to perform the test, and the small number of patients requiring the test. They also mentioned the 3-month delay not covered by the test (compared to 6 weeks for a latest generation combined ELISA) or the need to prescribe a broader assessment of STIs (Hepatitis virus, *Chlamydia trachomatis*, Syphilis).

4. Discussion

This was the first evaluation of RHT by community practice physicians in France. RHT were studied in a maternity ward, in

Table 4

Patient's opinion about RHT (self-administered questionnaire).
Opinion du patient vis-à-vis du test (données de l'autoquestionnaire).

Patients included having answered the self-administered questionnaire	<i>n</i> = 365
<i>Did you know about rapid tests?</i>	
ND	2
Yes	67 (18.5%)
No	296 (81.5%)
<i>Do you prefer obtaining results immediately rather than later?</i>	
ND	5
Yes	349 (96.9%)
No	11 (3.1%)
<i>Compared with regular blood sampling, fingertip sampling is</i>	
ND	3
More painful	22 (6.1%)
Less painful	304 (84.0%)
Cannot compare	36 (9.9%)
<i>Intensity of pain (0 = no pain; 10 = maximal pain)</i>	
Number (answer rate)	357 (97.8%)
Average (range)	1.1 (1.2)
Median/Min/Max	0.6/0.0/7.8
<i>If you were to recommend a screening test to your relatives, would it be</i>	
ND	13
The usual test	22 (6.3%)
The rapid test	330 (93.8%)
<i>Have you ever been prescribed a test for HIV without undergoing it?</i>	
ND	4
Yes	297 (82.3%)
No	64 (17.7%)

ND: results not documented.

an emergency unit, in an STD center, and in a community care center [11,12,14]. A similar study was made in a primary care center in London in 2007 [15].

The rate use for the RHT was 1.5% of adult patients ignoring their HIV status. It is difficult to compare this rate with other studies. A rate of 17.3% was reported in a study on systematic proposal of RHT to adult patients consulting in an Île de France emergency unit [12], but the patients stayed there longer and hospital physicians or nurses performed the RHT. Few studies have focused on the HIV screening activity of French community practice physicians. The rate of blood testing for HIV prescribed to the global population was de 4.2 for 1,000, as reported in a family medicine study including 58 family physicians of the Northern Paris region [16]. The average number of blood tests prescribed was six per month in a 2009 survey made by the INPES on family physicians [17]. The physician investigators performed an average 5.6 tests in our study, during an average inclusion period of 37.6 days. The rate of use in our study is close to usual HIV testing rates. More tests were performed by investigators in the group with exclusively private practice (4.26 tests vs. 3.38); practicing in a hospital does not lead to prescribing more RHT. But the physicians who used the RHT

Table 5
Physician's opinion of the RHT.
Opinion du médecin vis-à-vis du TROD VIH.

Investigators having answered the questionnaire at the end of the study	<i>n</i> = 72
<i>Are you globally satisfied with the RHT?</i>	
ND	5
Very satisfied	18 (26.9%)
Satisfied	23 (34.3%)
Little satisfied	22 (32.8%)
Not at all satisfied	4 (6.0%)
<i>Are you satisfied with the time needed for the test?</i>	
ND	4
Very satisfied	12 (17.6%)
Satisfied	33 (48.5%)
Little satisfied	18 (26.5%)
Not at all satisfied	5 (7.4%)
<i>Compared to blood tests, do you think that obtaining results with the RHT is</i>	
ND	5
Much more difficult	4 (6.0%)
More difficult	11 (16.4%)
As difficult	39 (58.2%)
Less difficult	13 (19.4%)
<i>What difficulties did you encounter?</i>	
ND	21
Difficulty to collect a drop of blood	31 (60.8%)
Time consuming	9 (17.6%)
Patient refusal	3 (5.9%)
Other	4 (7.8%)
Redundant with other tests made in the laboratory	2 (3.9%)
Result uncertain/Doubt on reliability	2 (4.0%)
<i>Will you continue using the RHT in your practice?</i>	
ND	3
Yes	41 (59.4%)
No	28 (40.6%)
<i>If not, why</i>	
	<i>n</i> = 28
It is not easy to use	15 (53.6%)
I don't have time for screening	12 (42.9%)
To few patients require screening	10 (35.7%)
Patients prefer an anonymous test	7 (25.0%)
Patients do not trust this test	3 (10.7%)
This test is not very reliable	1 (3.6%)
Other reasons	7 (25.0%)

ND: results not documented.

the most frequently were those who also had a hospital practice (8.87 tests vs. 5.87).

The acceptability rate in our study was excellent since 99.7% of patients agreed to use the RHT. Prost et al., in the study made in London in 2007, reported an RHT acceptability rate of 44.7% for eligible patients [15]. In this study, the RHT was proposed systematically to patients coming for a first consultation. The acceptability rate was 62.5% (42.5% to 83.6% depending on the site) in a study on the systematic proposition of RHT to adult patients consulting in a Paris region emergency unit [12]. In our study, the most frequent case was a patient's request after having been prompted by the poster in the waiting room (64.7% of the cases). Screening remained a voluntary action or consensual one with a chosen physician, supporting acceptability. The patients

were satisfied after using the RHT. More than 90% would recommend its use to their relatives and prefer obtaining results immediately. These rates correlate to the ones published by Smith et al. in a Californian STD center and of the community screening center (97% of patients would recommend the rapid test to a friend, 88% prefer obtaining results on the same day) [18].

The screened population in our study were an average age of 34 years (range 18 to 86 years). Our figures are similar to those of an observational study of HIV screening practices made on family physicians of Paris region in which the median age of tested patients was 35.6 years [16]. Patients under 30 years of age were more frequently tested (72%) in the Center for Free and Anonymous Screening (French acronym = CDAG), in 2009, whereas positive blood tests were more frequent in patients between 40 and 59 years of age [3]. Being over 30 years of age is a factor for delayed testing in France [19]. The new screening strategies should target older people. 41.4% of the screened patients were under 30 years of age in our study population. But above that age and comparatively to the CDAG, we had a better distribution of age ranges. Patients over 40 years of age make up a third of the screened of the population. The less than 20 years of age and the more than 60 years of age are over represented in the 22% of our population screened for the first time. It should be kept in mind that 17.7% of the study population had already been prescribed an HIV test without undergoing it.

A risk behavior in the 3 months before the test was an essential piece of data to validate RHT in case of negative result. Globally, 81.6% of patients had answered that question. The rate decreased to 75.7% for patients never tested before. Information on risk behavior was collected in only 55% of patients over 60 years of age (11/20). Half of patients questioned reported a risk behavior. It was non-protected sexual intercourse in around 90% of cases. The results should be interpreted with caution though. It seems excessive to have four blood transfusions reported in a population of less than 400 patients and in the 3 months months before the study. We believe that the question on risk behavior was often misunderstood. Some investigators took into account lifelong risk behavior.

As expected no test was positive in our study. It had for aim to test the feasibility of RHT in community practice and was not designed to identify new HIV carriers in the global population. Several thousand tests would have been required in that case.

Among the tests, 7.9% were non-valid, and this had never been reported in studies VIKIA[®] test performance [20,21]. These 30 non-valid tests were made by 19 physicians. Twelve (66.7%) of them had attended the Paris training session for RHT use. Sampling a drop of blood at a fingertip was problematic 22 times, and failed five times. Two physicians reported the absence of migration after placing the blood and a drop of dampening solution, and one physician reported the non-reaction of the test strip.

Globally, collecting the blood drop was the main difficulty, mentioned by nearly 61% of physician investigators. Mastering this technique requires some experience.

The second most often mentioned difficulty was the time consuming aspect of the procedure: the test length (explanation, performing, waiting, then giving results) was often described

as incompatible with a typical consultation in community practice.

Two decrees issued by the Ministry of Health in May then in November 2010 allowed physicians to use the RHT in their private practice office [22,23]. These texts specified the global principles regulating their use and the criteria of quality to respect. Other studies are required to assess the RHT method used, the best adapted available tests, and their optimal integration a physician's private practice. It also seems necessary to assess the effectiveness of such a policy in terms of new populations screened, new HIV infections diagnosed, and medical management initiated.

5. Conclusion

The latest French recommendations for the screening of HIV suggest using the RHT as an alternative to usual blood tests. The DEPIVIH study proved that a screening procedure for HIV using the RHT is possible in community practice consultation, with a feasibility rate of 1.5% and an acceptability rate of more than 99%. It allows screening a population which, for more than 20%, has never been tested before, and which is globally older than the one consulting in the CDAG.

Sixty percent of the physicians mentioned they would continue using the RHT in their daily practice, at the end of the study. This will be limited by technical difficulties of capillary blood sampling, and by the length of the test for non-planned consultation.

Disclosure of interest

The authors declare that they have no conflicts of interest concerning this article.

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Further reading

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