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Barriers to implement rapid HIV testing (RHT) in French General Practitioners' offices Outcomes from DEPIVIH study

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Background

- In France:
  - HIV screening: 5 million tests performed / 6,700 new HIV infections diagnosed per year
  - More than 60,000 GPs in private practices
  - ¾ of the tests made after a private physician prescription
  - Around 50,000 people anaware of their seropositive status
  - 30% of new diagnosis are late presentation of HIV infection (CD4 cell counts < 200/mm^3 or AIDS)

Background

- Last national HIV testing guidelines updated in 2008 recommend the development of routine testing and alternive HIV counseling and testing. *http://www.has-sante.fr*

- Based on many studies, mostly settled in the USA, rapid HIV tests are now encouraged in every primary care venue.

- Little is known about feasibility of RHT in physicians' private offices in Europe.

DEPIVIH-Objectives

- Primary endpoint
  - To determine feasibility and acceptability of a new rapid HIV test based screening procedure in French physicians' private offices
    (E-poster N° CDD077 – IAS 2011)
- Secondary endpoints
  - To identify difficulties associated with this new procedure
  - To measure patients' satisfaction

DEPIVIH-Methods

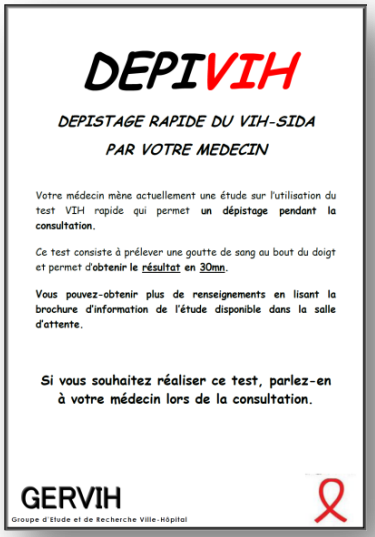
- Prospective interventional study led in French physicians' private offices during 30 working days between June and October 2010

- Investigators:
  - Physicians affiliated to HIV healthcare networks
  - Practising in private offices (ie non working in STD/GUM clinic)
  - Trained to use the RHT

- Population:
  - Adult patients visiting their physician, aged > 18 and covered by medical insurance
  - Exclusion criteria: impossibility to complete the consent form

DEPIVIH-Methods

- Patients waiting for their physician were informed about the possibility of having RHT during their consultation.



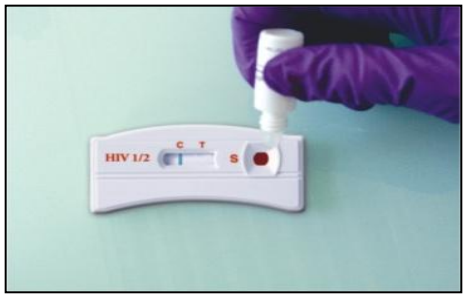
- RHT was performed following spontaneaous patient request or physician recommendation.

- VIKIA® HIV 1/2 with finger-stick whole blood was used.

VIKIA® HIV ½ (bioMérieux)

1/ Capillary puncture with microlancet after hand warming

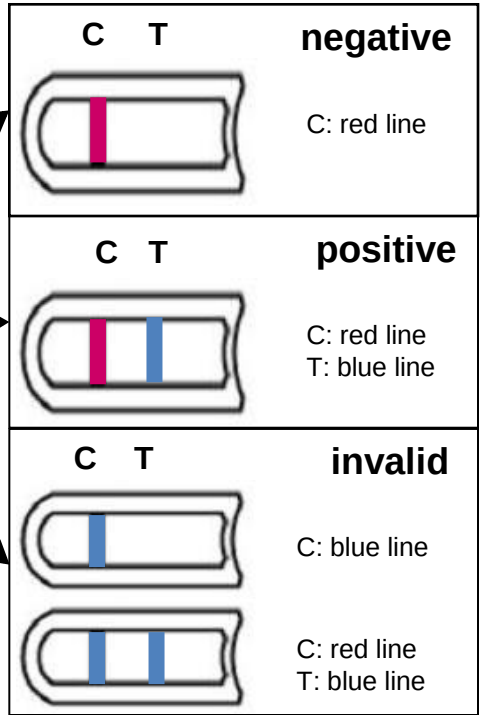
2/ Whole blood 75µL collection using a capillary tube



3/ Immediate deposit of the blood sample in the well

4/ Test result and interpretation 30 min later

C: control
T: test



DEPIVIH-Methods

- Concerning inconvenience and barriers to RHT use :
  - Real time recorded : technical difficulties met during testing procedure.
  - Post-study queries :
    - Global satisfaction according to physicians with rapid RHT
    - Main barriers identified for a routine use

DEPIVIH- Demography

- 95 physicians recruited:
  - 84 GPs, 6 dermatologists, 1 gynecologist
  - 62 enrolled at least one patient
  - 23 (24%) reached the goal of 10 RHT done
- 383 patients included:
  - 187 (48.8%) female, 196 (51.2%) male
  - Mean age 36.2 years old [18-86]
- 382 RHT accepted and completed

DEPIVIH - Main results

- Feasibility at physicians' office : 1.5%

$$Feasibility = \frac{n\ patients\ tested}{n\ patients\ with\ unknown\ serostatus} = \frac{5.6}{371} = 0.015$$

n: mean number

- Outpatient acceptance rate: 99.7%

$$Acceptability = \frac{N\ patients\ accepting\ RHT}{N\ patients\ included} = \frac{382}{383} = 0.997$$

N: number

DEPIVIH-Testing data

Population meeting inclusion criteria		**N= 383**	
Prior history of HIV screening	*Yes*	299	(78.1%)
	No	84	(21.9%)
Last test (mean): 2.9 years			
Reason for rapid HIV testing (N= 377)	*Patient's request*	244	(64.7%)
	Physician's recommendation	133	(35.3%)
RHT accepted and done	*Yes*	382	(99.7%)
	No	1	(0.3%)
Population tested		**N= 382**	
Test result (N= 378)	*Negative*	348	(92.1%)
	Invalid	30	(7.9%)
Difficulty during the testing procedure (N = 375)	*Yes*	157	(41.9%)
	No	218	(58.1%)

Details of difficulties encountered

Physician had at least one problem with achieving the test	N= 157	
Blood sampling	143	(91.7%)
Problem with handling test kit	2	(1.3%)
Uninterpretable result	10	(6.4%)
Other difficulties	21	(13.5%)

- Other difficulties:
  - Insufficient quantity of blood withdrawal using the microlancet (3),
  - Air bubble in the capillary tube or the well (6),
  - Handling the capillary tube (5),
  - Blood coagulation in the tube (1),
  - Inability to draw blood resulting in test failure (2),
  - Lack of test reaction (3),
  - Insuficient of time to complete test (1).

Invalid test results

		Test result	
		Invalid N = 30	**Negative** N = 342
Difficulties during testing procedure	**Yes**	27 (90.0%)	129 (37.7%)
	No	3 (10.0%)	213 (62.3%)

- Characteristics of physicians obtaining invalid results:
  - 19 physicians, sex ratio: 1, mean age 47.1 years old
  - 12 (66.7%) attended the training session in Paris
  - mean number of RHT performed: 6.2 [1-11]
  - mean number of invalid test results: 1.6 [1-4]

Barriers to implementation of HIV rapid testing identified by the investigators

Investigators who filled post-study questionnaire		N= 72	
What obstacles did you encounter with the RHT procedure?	*Blood sampling issue*	31	(43.1%)
	Time constraint	9	(12.5%)
	Patient's refusal	3	(4.1%)
	Need to test for more than one STI	2	(2.8%)
	Doubt on test result fiability	2	(2.8%)
	Other	4	(5.5%)
	None	21	(29.2%)
Would you continue to use RHT in your daily practice? (N= 69)	*Yes*	41	(59.4%)
	No	28	(40.6%)

Conclusion

- First study evaluating feasibility of rapid HIV testing in primary care private practice in France.
- Rapid screening with RHT is new in France = training needed to assure quality control.
- Principle barriers identified to implementation of RHT:
  - Blood sampling issues,
  - Time constraints.
- Need for « ready to use » RHT:
  - Improve/simplify sampling method,
  - Convenient packaging.

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