

Sören Anderson ¹, A. Naucélér ¹, H. Norrgren ¹, F. Dias ², I. Johansson ², G. Biberfeld ¹
HIV-1, HIV-2, HTLV and Treponema pallidum infections in a cohort of police officers in Guinea-Bissau

¹ National Bacteriological Laboratory, Stockholm, Sweden

² National Public Health Laboratory, Bissau, Guinea-Bissau

Objective : To establish baseline data for a prospective cohort study of the natural history of HIV-2 infection in Guinea-Bissau.

Methods : 797 police officers (728 men, 69 women) were screened for the abovementioned infections by serological tests. 443 of them have tested a second time (mean follow-up time 15 months, range 3-29 months ; total follow-up time 687 person years). HIV and HTLV antibodies were detected by ELISA (Behring anti-HIV-1/HIV-2 and/or Wellcozyme anti-HIV-1 and an in-house anti-HIV-2 (SBL 6669) ; Abbott anti-HTLV-1) and confirmed by Western blot (WB). T. pallidum infection was detected by TPHA (Fujirebio).

Results : The overall prevalence of HIV-1, HIV-2 and HIV-1 & 2 double reactive sera was 0.4 %, 13.3 % and 0.25 % and the incidence was 0.82, 1.47 and 0 (No./100 person years), respectively. The prevalence and incidence of TPHA reactivity was 12.6 % and 0.96 %, respectively. The HTLV seroprevalence was higher among HIV-2 seropositive (7.4 %) subjects than among HIV seronegative (3.6 %), but the difference did not reach significance. There was no association between the prevalence and incidence of the other infections. 5/42 HTLV-positive sera had a serological pattern suggesting HTLV-II infection. The age distribution showed an increase with age for HIV-2 and HTLV, the former with a peak above 50 years and the latter at 40-49 years;

Conclusions :

- 1) The HIV-1 incidence was high considering the low prevalence.
- 2) Although the HTLV seroprevalence' was higher among HIV-2 seropositive subjects than among HIV seronegative no significant association between the infections studied could be detected.
- 3) The incidence of HTLV-infections in this cohort of police officers in Guinea-Bissau was low.
- 4) There is serological indication of HTLV-II infections in Guinea-Bissau.

IXth International Conference on AIDS, Berlin, 1993, t. II, p. 673, PO.C 07-2739

A. Baillou ¹, D. Brand ¹, F. Denis ², S. Mboup ³, A. Goudeau ¹, F. Barin ¹
High antigenic cross-reactivity of the V3 consensus sequences of HIV-1 gp120

¹ Unité de Virologie, Département de Microbiologie Médicale et Moléculaire, URA CNRS 1334, CHRU Bretonneau and UFR Pharmacie, 37044 Tours cedex, France

² Laboratoire de Bactériologie-Virologie, CHRU Dupuytren, Limoges, France

³ Laboratoire de Bactériologie-Virologie, Université de Dakar, Sénégal.

Objectives : To evaluate the reactivity of human sera positive for HIV-1 antibodies towards peptides corresponding to the V3 region of HIV-1.

Methods : Six peptides of 30 residues corresponding to the PND of HIV-1 were synthesized. They corresponded to the North-American/European V3 consensus sequence (V3 Cons), HIV1MN, HIV1MAL, HIV1ELI, and to 2 African V3 consensus sequences.

These peptides were used as antigen in ELISA microtiter plates.

Sera : Four hundred and thirty seven human sera including 79 HIV negative samples and 358 HIV-1 positive samples originating from France, West-Indies, Senegal, Ivory Coast, Togo, Burkina, Congo, Burundi and Ethiopia have been tested for the presence of antibodies reacting to the peptides.

Results : Ninety four percent of HIV-1 positive sera reacted to the North-American/European

consensus sequence, although only 64 % reacted to the MN peptide. Sera that reacted less frequently to the MN peptide were from East Africa, 12 % and 40 % for Ethiopia and Burundi respectively. On the contrary, West African sera reacted equally well to V3MN peptide when compared to European sera (76 %). Sera from East-Africa were less reactive to V3 Cons. Among the 20 sera negative with the V3 Cons assay, 10 were reactive with the African consensus peptide. Using only 2 consensus peptides, it was possible to detect the presence of antibody to the V3 loop in 97 % of the tested sera.

Conclusions : Although African and European people are infected by highly divergent HIV-1 strains, both populations are able to react to the North-American/European consensus sequence. In contrast for V3 specific strains the frequency of reactivity correlated with the origin of sera. These results obtained in this study indicate that the V3 consensus sequences represent the best candidates for an optimal cross-reactivity with a wide variety of strains. Such sequences must be evaluated as immunogens for prevention of HIV-1 infection.

IXth International Conference on AIDS, Berlin, 1993, t. I, p. 210, PO.A 21-0453

Neil Berry ¹, K. Ariyoshi ², Q. Jobe ², A. Wilkins ², R. S. Tedder ¹, H. Whittle ²

A sensitive and specific nested PCR for quantification of proviral DNA in HIV-2 infected individuals

¹ Division of Virology

² UCMSM, London, UK, and MRC Laboratories, The Gambia, West Africa

Objectives : To establish a sensitive and specific nested PCR for the detection and quantification of HIV-2 proviral genomes in clinical specimens.

Methods : DNA was extracted from 103 HIV-2 seropositive individuals and 0.6 µg amplified in a nested PCR utilising target sequences in the highly conserved U3 region of the long terminal repeat (LTR) of HIV-2. The secondary PCR was modified to incorporate ³⁵SdATP and the product captured onto streptavidin coated microtitre wells using biotinylated primers. A standard curve was generated from known copy number of pROD10 plasmid and related to the signals generated in test samples. Absolute CD4+ counts were determined for all individuals.

Results : In total, 98/103 samples were unequivocally positive by HIV-2 nested PCR (sensitivity = 95 %). 40 of these samples were also analysed by quantitative PCR. The relatively high dynamic range of the assay (100-20 000 cpm) allowed a simple classification of the relative amounts of HIV-2 proviral DNA. These fell into three main groups, and the mean absolute CD4+ count related to these.

Table 1

Copy number/ml blood	Proportion(%)	Mean CD4 count (SD)
High (1 000-10 000)	7/40 (17)	141.4 (138.7)
Intermediate (100-1 000)	6/40 (15)	251.4 (214.2)
Low (1-100)	27/40 (68)	620.4 (635.8)

A clear correlation between viral load and CD4+ count was demonstrated, with the highest proportion of samples falling into the low copy number group.

Conclusions : A high proportion of HIV-2 PCR positive individuals contained only relatively low copies of integrated proviral DNA which was strongly associated with high CD4+ counts. This assay may be useful in addressing the differences in pathogenicity observed in HIV-2 infected individuals in West Africa.

IXth International Conference on AIDS, Berlin, 1993, t. I, p. 278, PO.B 01-861

J. Bonis, M. Verdier, F. Denis

HTLV-I and HTLV-II infections in several countries of Africa

Objective : Discrimination of HTLV-I and HTLV-II infections in several countries of Africa with serological tests : EIA peptides and Western blot.

Material : A total 153 positive sera from 7 262 subjects of general population and 122 positive sera from 4 526 patients previously determined as HTLV+ were tested. These samples were collected in : Benin, Burkina, Cameroun, Congo, Ethiopia, Ivory Coast, Senegal, Togo and Tunisia.

Methods : The discrimination between HTLV-I and II was obtained using :

- EIA peptides and an inhibition procedure using synthetic peptides from core protein (p19) of HTLV-I (amino acids 111-130) and HTLV-II (amino acids, 116-135) ;
- Western blot (WB) containing MTA-1, and HTLV-I specific epitope and K-55 an HTLV-II specific epitope. (Diagnostic Biotechnologie, Biotim).

Results : The repartition between serotypes is :

General population. On 153 samples :

- 145 sera were determined as HTLV-I ;
- 2 sera from Senegal and Ivory Coast were determined as HTLV-II ;
- 6 sera were characterized as HTLV-II by EIA peptide but no reactivity with recombinant proteins MTA-1 or K-55 was observed.

Patients. All samples were determined as HTLV-I.

Conclusion : Among 275 HTLV samples from Africa, 97,1 % were HTLV-I and 2.9 % were HTLV-II. This study indicates that in Africa HTLV-I infection is predominant, but HTLV-II infection is also present. This study is the first cases of HTLV-II infection reported in West Africa (Ivory Coast and Senegal). Previously, HTLV-II infections were reported in Central Africa : in Gabon (Delaporte) and in Zaire (Goubau). All samples from different groups of patients (TSP, others neurological diseases, leprosy hospitalized subjects) were HTLV-I positive.

IXth International Conference on AIDS, Berlin, 1993, t. II, p. 675, PO.C 07-2749

François Chièze¹, Pierre M'Pelé², A. M. Coll Seck³, Auguste Kadio⁴, Lazare Kaptué⁵, Marc Gentilini¹

New approaches to the comprehensive care of HIV infection in sub-Saharan Africa

¹ OPALS, 15 École de Médecine, 75006 Paris France

² CHU Brazzaville, Congo

³ CHU Fann, Sénégal

⁴ CHU Treichville, Abidjan, Côte-d'Ivoire

⁵ CHU Yaoundé, Cameroun

Objectives : OPALS is a network of more than 200 doctors and scientists in thirty African countries, created in 1988 by physicians from Europe and Africa. OPALS' objective is to create and develop a network of scientists confronted daily with AIDS in their hospitals and clinics and to give them the means to exchange scientific information and knowledge in spite of difficult communications and linguistic variety. During the two previous workshops, one in Mbabane (Swaziland) and one in Libreville (Gabon). OPALS elaborated specifically African projects for people with AIDS. These projects are today being carried into effect thanks to, amongst others, the French Ministry of Cooperation and Development who has been one of OPALS' partners since its creation. OPALS tries as well to sensitize the countries of the North to the socio-economic consequences of AIDS on the African continent.

Method : 1. A mission has been organized by OPALS for the Budget for Research of the French National Assembly's Chairman in 1989 in order to sensitize and inform French and European States-Men ; 2. Building and organizing day care clinics throughout sub-Saharan Africa (the first one is programmed first semester 1993) ; 3. Organization of a workshop between Doctors and Traditional Healers in Gabon (1993) ; 4. "Sidafrique" : Medical News-letter issued by OPALS' members to their

colleagues ; 5. Distribution of information and formation kits for medical and para-medical African staff.

Conclusions : There is still much to do concerning formation, prevention, and information on AIDS. Therefore a news-letter containing the experience and difficulties of doctors of different African countries with specific scientific data ; formation kits for medical and paramedical staff ; including the Traditional Healers as a vector of prevention and information, should be quickly efficient tools for those fighting against AIDS. Day care clinics, as we can see through our experience in the North, are essential to proceed to rapid diagnosis, to unchoke hospitals, and to keep patients as long as possible in their socio-economic backround.

IXth International Conference on AIDS, Berlin, 1993, t. II, p. 891, PO.D 21-4042

Mamadou Ciré Dia ¹, R. Marlink ², I. Thior ³, P. Kanki ², I. Ndoye ⁴, S. Mboup ³, *et al.*
Natural history of HIV-2 and HIV-1 infection in Senegal

¹ Hôpital Régional de Ziguinchor, Ziguinchor, Senegal

² Department of Cancer Biology, Harvard School of Public Health, USA

³ Laboratory of Bacteriology-virology, University C. A. Diop, Dakar, Senegal

⁴ Institut d'Hygiène Sociale, Dakar, Senegal

Objective : To describe and compare the natural history of HIV-2 infection with HIV-1 in a prospective cohort study of commercial female sex workers in Senegal.

Methods : All female sex workers registered with the national MST center in Ziguinchor (site 1) were recruited and followed since 1986. In a comparable registration clinic in Dakar (site 2) female sex workers were enrolled and followed since 1985. Clinical examinations were performed on each woman at least yearly.

Results :

	<i>HIV-1</i>		<i>HIV-2</i>		<i>HIV Neg.</i>	
	<i>Site 1</i>	<i>Site 2</i>	<i>Site 1</i>	<i>Site 2</i>	<i>Site 1</i>	<i>Site 2</i>
No. of Women	3	41	85	112	151	289
Total Person Yrs	5	91	192	370	314	1 144
AIDS Incidence (/100 person yrs)	ND	2.2	0.5	0.3	0	0

In HIV-1 infected women we have seen the development of AIDS in 2 women at site 2 only. We have been able to evaluate prospectively 277 HIV-2 infected women from the two sites for 482 person years. In HIV-2 infected women there was one case of AIDS in each site with an incidence of clinical AIDS of 0.5 and 0.3, by site, respectively.

Conclusion : The incidence rate of AIDS development appears to be lower in HIV-2 compared to HIV-1 suggesting a distinct pathogenic potential for these two related HIV viruses.

IXth International Conference on AIDS, Berlin, 1993, t. I, p. 283, PO.B 01-888

I. Ndoye ¹, M. L. Sakho ¹, I. Diaw ¹, N. D. Samb ¹, A. D. Sarr ¹, S. Mboup ¹
Treatment of STD as response of HIV pandemic in Africa : New approaches

¹ CNLS-Sénégal

Now, in African countries, we register many resistances and failures in STD treatment.

The reason was the lack of knowledges in actual treatments of STD done particularly by the chemists, the nurses, the tradipraticians and so on.

For all these reasons, we purpose in the present paper the development of all these failure and the new approaches which permit in the future to have best results in the good management of STD and consequently good prevention of HIV in Africa.

These strategies are based on practical experiences done in one country where management of STD is well developed since 15 years and on present STD data base in African countries.

IXth International Conference on AIDS, Berlin, 1993, t. II, p. 727, PO.C 20-3063

A. G. Poulsen, J. Jørgensen, J. Stenderup, K. Weissmann, J. Søndergaard
Skin diseases and HIV-2 infection in Bissau, West Africa

¹ Statens Seruminstitut, Bispebjerg Hospital, Copenhagen, Denmark

² Department of Dermatology, Bispebjerg Hospital, Copenhagen, Denmark

Objectives : To study the prevalence of skin diseases in the general population and their possible association with HIV-2 infection.

Methods : All inhabitants in a number of houses chosen for community studies in Bissau were asked about skin problems. Clinical diagnoses were made on the spot, max. 2 per person. HIV testing was done independently.

Results : Number of diagnoses in adults (480, 384 tested) :

<i>Diagnostic Group</i>	<i>Examined</i>	<i>HIV tested</i>	<i>HIV-2 pos.</i>
N.A.	347 (69.4 %)	281 (71.0 %)	18 (64.3 %)
Venereal dis.	2 (0.4 %)	0	0
Bacterial inf.	21 (4.2 %)	17 (4.3 %)	3 (10.7 %)
Viral inf.	4 (0.8 %)	3 (0.8 %)	0
Infestations	4 (0.8 %)	2 (0.5 %)	0
Mycoses	66 (13.2 %)	46 (11.6 %)	3 (10.7 %)
Spec. skin dis.	8 (1.6 %)	8 (2.0 %)	1 (3.6 %)
Allergic react.	8 (1.6 %)	5 (1.3 %)	0
Other dermatites	27 (5.4 %)	23 (5.8 %)	2 (7.1 %)
Other	13 (2.6 %)	11 (2.9 %)	1 (3.6 %)
<i>Total</i>	500 (100 %)	396 (100 %)	28 (100 %)

Conclusion : HIV-2 infection does not appear in this population to be associated with significant skin morbidity.

IXth International Conference on AIDS, Berlin, 1993, t. I, p. 448, PO.B 20-1880

P. M. Preux ², A. G. Diop ², J. Kaboré, A. Cissé ¹, F. Denis ³, M. Dumas ², A. Condet ¹, M. Ndiaye ¹,
E. K. Grunitzky ¹, G. Mouanga ¹, B. Kouassi ¹
Seroprevalence of human retroviruses among 1 872 patients with neurological diseases in Africa

¹ Research Group in Neuroretrovirology

² Institute of Epidemiology and Tropical Neurology of Limoges

³ Department of Bacteriology-Virology, Limoges University Hospital

Objective : To estimate the prevalence of retroviruses HTLV-I and HIV-2 among all hospitalized patients suffering from a neurological disease in Black Africa

Patients and Methods : The study was carried out between March and July 1991 among all the patients who were hospitalized in the departments of Neurology or Medicine in the University Hospitals of

Brazzaville (Congo), Lomé (Togo), Abidjan (Ivory Coast), Dakar (Senegal), Ouagadougou (Burkina Faso) and Conakry (Guinea). The blood samples were obtained from the patients during a variable period depending on the departments. The clinical examination was made by a neurologist. If necessary, it was completed with paraclinical investigations. The patients were classified in 6 categories : tropical spastic paraparesis (TSP), other myelopathies (Myelop.), isolated cranial nerves palsies (CN), other peripheral neuropathies (Neurop.), meningoencephalitis (ME), other neurological diseases (Other). The serum of each patient was tested by ELISA and confirmed, if necessary, by Western blot. The positivity criteria of WHO were utilised. The statistical test was the Chi-square Mantel Haenzel test with or without Yates correction. The mean prevalence of HTLV-1 in the general population of these countries, during the same period was estimated between 1 and 2 %.

Results : The results are detailed in the Table and are given in %

Type	N	HTLV-I alone	HTLV-I + HIV-1	HTLV-I +HIV-2	HTLV-I +HIV-1/2	HIV-1 alone	HIV-2 alone	HIV-1 +HIV-2
TSP	107	11.2	4.7	2.8	0.0	1.9	0.0	1.9
Myelop.	318	0.6	0.9	0.0	0.3	3.1	1.6	1.9
CN	74	1.4	0.0	0.0	0.0	13.5	0.0	0.0
Neurop.	254	1.6	0.8	0.0	0.0	7.5	0.8	2.8
ME	130	2.3	3.8	0.0	0.8	27.7	0.8	6.9
Other	989	0.5	0.1	0.0	0.0	6.2	1.5	1.3
<i>Total</i>	1 872	1.4	0.9	0.2	0.1	7.4	1.2	2.0

The highest rate of prevalence for HTLV-I was found in the Ivory Coast (4.81 %) For HIV-1, it was found in Congo (18.9 %) and in Burkina (18.5 %).

Conclusion : In Black Africa, HTLV is significantly linked with TSP only ($p < 0.001$) in neurological diseases ; however, 4/5 of these TSP are related with some other aetiology.

IXth International Conference on AIDS, Berlin, 1993, t. II, p. 674, PO.C 07-2745

M. L. Sakho, Ibra Ndoeye, L. Fransen, J. Casanova, N. D. Samb, S. Mboup.
Treatment of STDs as response to HIV pandemic in Africa : new approaches

¹ CNLS, Senegal

² EEC / AIDS Task Force

Problem : STD prevalence results from a rapid assessment carried out in Dakar and Pikine in 1989-1990 demonstrate that STDs are an important public health problem among pregnant women, the military and prostitutes. This problem is aggravated by the possibility of the augmentation of HIV prevalence in Senegal. At the same time a deficiency in the management capacities of the problem by the health services was reported.

Objective : Amelioration of the clinical and therapeutic management of STDs in Senegal through training in the use of appropriate simple algorithms.

Methods : A study among 397 female prostitutes and 419 men presenting with STDs was realised in order to examine the following variables : age, marital status, motive for consultation, type of auto-medication, etc. At the same time a training programme in the use of clinical and therapeutic algorithms for STDs and counselling procedures for STD/AIDS prevention for medical and paramedical personnel was implemented. The availability of essential drugs for a correct use of the therapeutic algorithms in the primary health care services was assured by the the Bamako Initiative.

Results : The age limit of most of the target groups was between 20 and 49 years and the marital status for the female prostitutes was 42 % divorced and 31 % single ; 43 % of the men were married and 50 % single. Among the men with an STD the principal motives for consultation were 64.4 % for urethritis,

11.9 % for dysuria and 10.2 % for ulceration. Of the women consulting for STDs 70 % received some form of treatment before coming to the health centre (by auto-medication, visits to private pharmacies, etc.). The principal self-administered drugs are sulfonamides (80 %). Training sessions were organised for 615 health care workers and 50 pharmacists from the private sector. The drugs available at the level of basic health facilities were : cotrimoxazole, tetracycline, metronidazole, penicillin, nystatin.

Conclusion : It is necessary to integrate the fight against STD/AIDS into primary health care structures through training of health care personnel in the use of simple and appropriate algorithms in order to improve and rationalize the clinical management of STDs and to reduce the risk of HIV transmission.

IXth International Conference on AIDS, Berlin, 1993, t. I, p. 81, WS.B 38-1

*Ngoné D. Samb*¹, *F. Van der Veen*², *M. Sène*¹, *A. Thiam*¹, *L. Van de Velden*², *D. Diouf*¹,
*A. Faye*¹, *L. Franssen*², *I. Ndoye*¹, *S. Mboup*¹
Sentinel surveillance of STD, its implication for AIDS control in Senegal

¹ Cheikh Anta Diop University

² AIDS Task Force

Objectives : This program was implemented to improve HIV and STD detection. We wished to investigate the prevalence of HIV and most common STD in the population (PW/pregnant women ; GC/gynecologic consultatnts, MSP/Male STD patients ; FP/Female prostitutes) and study the relationship between HIV and STD infection.

Methods : Laboratories were established and equipped. Personnel were trained in STD and HIV diagnosis and laboratories were regularly visited to supervise and quality control the laboratory methods.

Results : Five networked clinics have been involved in the survey since May 1989. Data collected include routin clinic examination and laboratory procedures : direct microscopy, culture for *N. gonorrhoeae*, *C. trachomatis* antigen detection, HIV and syphilis serology.

Groups	Gono	<i>T. vaginalis</i>	Bacteria	<i>Candida</i>	<i>Chlamydia</i>	<i>Treponema</i>	HIV
P.W n=781	1.2	15.9	5.6	24.3	8.1	5.6	0.3
G.C n=795	1.7	16.1	30.3	23.3	8.0	14.4	0.1
MSP n=419	36.9	14.5	—	—	13.4	12.1	1.8
FP n=397	13.1	17.6	31.6	5.9	17.1	40.3	12.2

Conclusions : A large number of asymptomatic persons have been determined. STD is highly prevalent in the study group. Syphilis is highly associated with HIV onfection among prostitutes. Our study has increased the awareness of local authorities on the importance of these infections and have stimulated efforts in order to improve STD-HIV prevention.

IXth International Conference on AIDS, Berlin, 1993, t. II, p. 651, PO.C 03-2604

*Jean-Louis Sankalé*¹, *R. Sallier de La Tour*¹, *R. Marlink*², *S. Mboup*¹, *M. Essex*², *P. Kanki*²
In vivo genetic variability of HIV-2 envelope V3 region

¹ Laboratoire de Bactériologie-Virologie, Hôpital A. Le Dantec, Dakar, Sénégal

² Department of Cancer Biology, Harvard School of Public Health, Boston, MA, USA

Objectives : To determine the genetic variability of HIV-2 V3 region within and between sequential

samples of infected individuals. To compare the extent of variation of HIV-2 to HIV-1 and to determine if any specific sequence variation is associated to disease progression in HIV-2.

Methods : DNA was obtained from PBL, other tissues and from cultured virus in cell lines by phenol-chloroform purification. We used a nested PCR to amplify a 508bp fragment containing all the V3 region. The first round primers were located at nucleotides 6660-6677 and 7279-7297 and the second round primers at nucleotides 6791-6809 and 7279-7297 of the HIV-2 envelope gene. Negative controls were included as appropriate. The PCR product was purified then cloned (T/A cloning, Invitrogen). Sequences of the entire V3 region (102bp, cysteine to cysteine) were determined by chain-termination method.

Results : Sequential PBL DNA samples (12/89 and 9/92) were obtained from asymptomatic individual (A), and from another individual (B) healthy at the first sample (3/89) and with a drop in T4 lymphocytes at a second sample (9/92). Viral cell culture DNA was obtained for subject B and a viral sequence was already published for subject A. From a third symptomatic patient (C), we obtained PBL DNA (11/88) and post-mortem bone-marrow and brain DNA (12/89). Viral isolates from these three tissues were also studied. Most of the sequenced clones (6 for first sample and 9 for second sample) from subject A were identical to the published sequence of the viral isolate, obtained at the early timepoint (HIV-2 ST). Only one clone from each sample differed from the others by a single nucleotide. 7 clones from the first sample of subject B were identical to each other and differed by two nucleotides from 5 clones of a viral isolate obtained at the same time and propagated in a T-cell line (SupT1) for 3 years. The second sample showed a more important inpatient variability with 8 clones differing from each other by up to 4 % and to the first sample by up to 6 %.

Conclusion : These preliminary data indicate that inpatient variability of the HIV-2 envelope V3 region in asymptomatic individuals may be less than HIV-1 possibly due to a lower replication rate. As health status deteriorates the variability increases.

IXth International Conference on AIDS, Berlin, 1993, t. I, p. 23, WS.A 07-2

P. S. Sow¹, R. Colebunders², Y. Pleerackers², E. Katabira³

Attitudes among health care workers (HCW) concerning the clinical management of persons with HIV infection in developing countries

¹ Hôpital de Fann, Dakar, Sénégal

² Institute of Tropical Medicine

³ Mulago Hospital, Kampala, Uganda

Objectives : To study the attitudes of HCW working in developing countries concerning the clinical management of persons living with HIV infection.

Methods : A questionnaire was handed out to all participants of a minicourse, which was organised during the VIIIth International AIDS/STD Conference in Amsterdam.

Results : 51 HCW completed the questionnaire, 27 (53 %) were working in Africa. Attitudes of the 27 HCW working in Africa :

— permission of HIV testing is generally not asked ;

— 40 % inform all patients about their diagnosis ;

— 70 % reported to have the possibility to refer patients to specialised counselling services ;

— many HCW favour mandatory HIV testing : for terminal AIDS patients (67 %), for TB-patients (55 %), before surgery (33 %), for STD patients (30 %), for pregnant women (18,5 %), before marriage (18,5 %).

Conclusion : Opinions about patient management and HIV testing differ widely among HCW in Africa. More research concerning these issues is needed. Every country should establish national guidelines.

IXth International Conference on AIDS, Berlin, 1993, t. II, p. 721, PO.C 18-3026

P. S. Sow¹, N. Ndoye², E. A. Bâ², M. R. Ndiaye², A. Wade², A. M. Seck-Coll¹
Ocular lesions in AIDS patients in Dakar

¹ Infectious Diseases Department, Fann Hospital, Dakar, Senegal

² Ophthalmologic Department, Dantec Hospital, Dakar, Senegal

Objectives : To study ocular lesions in AIDS patients at Dakar.

Methods : A prospective study was undertaken between November 1989 and December 1991 at the Infectious Diseases Department. Every AIDS patient was observed in order to describe ocular lesions.

Results : Ocular lesions were discovered in 52,33 %. These lesions were observed in both HIV-1 and HIV-2 positive patients, however they were much more common in the former group (77,14 %). Retinal pathology was by far the most frequently observed (60 %) and yet classic retinitis was not discovered in our series.

Conclusion : We feel that the ophthalmologist should play a key role in the routine care of AIDS patients especially in surveillance of retinal changes.

IXth International Conference on AIDS, Berlin, 1993, t. I, p. 426, PO.B 16-1743

H. Tamashiro¹, E. M. Belsey¹, G. M. Gershy-Damet², N. G. Liornba³, S. Mboup⁴, C. Wasi⁵ *et al.*
Field evaluation of HIV-1 and HIV-2 combined antibody assays

¹ Office of Research, GPA/WHO, Geneva, Switzerland

² Institut Pasteur, Côte-d'Ivoire

³ ACP, Malawi

⁴ University of Dakar, Senegal

⁵ Mahidol University, Thailand.

Objectives : To determine the sensitivity, specificity and other parameters of the combined HIV-1 and HIV-2 antibody assays when used in peripheral laboratories in different regions.

Methods : A field evaluation of 5 rapid assays and 8 ELISA were conducted in Côte-d'Ivoire, Malawi, Senegal and Thailand. In each country, at least 1 500 specimens were tested by 3 rapid tests and 3-5 ELISA. The rapid tests were performed at peripheral laboratories and the ELISA and supplemental tests at a central laboratory.

Results : The sensitivity of the rapid tests varied little between tests or between countries : from 97.8 % in Côte-d'Ivoire, 98.1 %-98.6 % in Malawi, and 98.9 %-99.4 % in Thailand. The sensitivity of the ELISA tests reached 98.8 %-100.0 % in Côte-d'Ivoire, 96.8 %-98.3 % in Malawi and 98.3 %-98.9 % in Thailand. Results for Senegal are pending. The specificity of the rapid tests was at least 94.5 % but reached 99.6-99.7 % in Thailand.

Conclusions : The rapid tests performed as good as ELISA and had particularly better specificity.

IXth International Conference on AIDS, Berlin, 1993, t. I, p. 539, PO.B 40-2422

Oumar Tandia¹, M. H. Mottin-Sylla¹

La créativité populaire comme outil pédagogique d'action contre le sida, en milieu prostitutionnel

¹ ENDA-Santé, Dakar, Sénégal

Objectifs : Valoriser la communication non officielle et la recherche d'alternatives économiques viables

pour la promotion du travail du sexe sans risque.

Méthodologie : Impliquer les personnes qui pratiquent le travail de prostitution dans les activités de créativité éducative, par le moyen du théâtre et les jeunes populaires.

Résultats : Dès lors qu'il est admis que le changement de comportement reste dans la situation actuelle la seule arme contre le sida, les populations dites à haut risque, comme les prostituées, sont une composante incontournable. Elles doivent, à cet effet, être impliquées dans les actions, si les programmes de lutte veulent enregistrer de grands résultats. Au stade actuel de notre intervention, nous avons installé parmi cette population une troupe de théâtre dans un quartier suburbain de Dakar, et initié des actions de concertation et d'échange dans différents lieux.

Conclusions : Si la communauté dans son ensemble s'engage, la population à risque en tête du combat, le spectre du sida sera vaincu.

IXth International Conference on AIDS, Berlin, 1993, t. II, p. 829, PO.D 09-3668

F. Van der Veen ¹, E. Ashamo ², W. Feleke ³, T. Kanya ⁴; H. Moffat ⁵; I. Ndoye ⁶ *et al.*
Five year experience in data collection for development and monitoring of STD control projects

¹ EEC AIDS Task Force, National STD manager

² Ghana

³ Ethiopia

⁴ Swaziland

⁵ Botswana

⁶ Senegal

Objective : To assess the need and feasibility of data collection to improve STD patient management and to facilitate health planning, costing and monitoring.

Introduction : Since its start in 1987, the EEC AIDS programme has supported national STD/AIDS control programmes, including improvement of data collection, in 21 developing countries in order to enhance targeted promotion of safer sex and to reduce co-factors facilitating HIV transmission.

Methods : Prevalence of STDs was assessed in different clinical settings by appropriate laboratory techniques. A reporting system of STD related syndromes by Sentinel health facilities was developed. In addition, surveys on health service provision and population based studies of incidence and prevalence of STDs were carried out in some countries.

Results : In pregnant women, prevalence of active syphilis varied from 5.6 % to 16.2 %, of Neisseria gonorrhoeae from 1.2 % to 14.6 %. In female sex workers, prevalence of active syphilis varied from 18 % to 40 %. and of N. Gonorrhoeae from 13.1 % to 30.1 %. A rate of 12.5 % to 25.7 % of PPNG was found in N. Gonorrhoeae infections of male urethritis patients. Annual consultation rates for STDs reported by public services for both sexes varied from 9.5 per 1,000 to 247 per 1,000 inhabitants. Prevalence studies have facilitated the introduction of appropriate management protocols for STDs in 12 of the 21 countries. Improved clinical reporting is now carried out in 11 of the 21 countries.

Conclusion : The development of an appropriate data collection for STD programmes is essential for planning and monitoring and is feasible within existing health structures. However regular collection of even very essential data requires considerable preparation and supervision. It allows to follow-up trends, to make comparisons between different countries, and formulate further data requirements.

IXth International Conference on AIDS, Berlin, 1993, t. II, p. 780, PO.C 35-3378

A. Wade ¹, A. Dieng-Sarr ¹, A. A. Diallo ¹, A. Thiam ¹, L. Diakhaté ¹, A. M. Coll-Seck ¹, I. Ndoye ¹, F. Diédhiou ¹, S. Ba ¹, A. Gaye ¹, I. Sall ¹, D. Diouf ¹, S. Mboup ¹
HIV-1 and HIV-2 infection in Senegal

¹ Cheikh Anta Diop University, Dakar

Objectives : To describe both status of the HIV infection and epidemiological trends by serial evaluations through a networked sentinel surveillance system.

Methods : A consecutive sampling is employed. A standardized collection allow yearly comparison of seroprevalence rates in 6 groups within a site between 4 sites. All sera are screened by Elisa and confirmed by Western blot.

Results : Prevalences

<i>Sites</i> Groups	<i>Dakar</i>		<i>Kaolack</i>		<i>Saint-Louis</i>		<i>Ziguinchor</i>		n
	HIV-1	HIV-2	HIV-1	HIV-2	HIV-1	HIV-2	HIV-1	HIV-2	
Blood donors	0.5	0.2	0.1	0.5	0.0	0.1	0.1	0.7	7 471
Pregnant women	0.3	0.6	0.3	1.3	0.0	0.2	0.1	1.5	6 102
Hosp.patients	10.2	3.9	0.7	3.1	0.9	1.8	0.6	4.4	1 024
Tuberc. patients	3.0	1.9	1.1	2.5	0.0	2.2	1.2	4.1	1 372
Male STD's	1.4	1.1	2.0	1.5	0.0	0.4	0.1	1.6	2 008
Prostitutes	4.3	5.6	8.3	22.7	0.7	5.5	1.1	24.2	3 375

Conclusions : These results confirm the predominance of HIV-2 infection in Senegal. Latest data show a significant increase of HIV-1 infection among certain groups (blood donors, prostitutes) and sites (Dakar, Ziguinchor). This confirm the relative stability of HIV-2 epidemiological trend while HIV-1 slowly raise for some groups. These usefull results already helped in implementation of preventive measures.

IXth International Conference on AIDS, Berlin, 1993, t. II, p. 761, PO.C 29-3264