

# Characteristics of Patients Referred for HIV Pre-Test Counselling at University Hospital Kuala Lumpur 1991-1994

B Yen, Dip Soc Work\*, C L Teng, MMed\*\*, M Y M Shajahan, MCGP\*\*

\*Medical Social Work Unit, \*\*Department of Primary Care Medicine, University Hospital Kuala Lumpur, 50603 Kuala Lumpur

## Summary

This study examines the demographic and risk factors among patients referred to an AIDS counsellor for pre-test counselling. One hundred and fifty-eight patients received HIV pre-testing counselling at UHKL from January 1991 to December 1994. The overall prevalence of HIV infection among this group was 26.6%. High positive rates were noted among patients referred from the Wards and Specialist Clinics (69.2% and 25% respectively) while lower positive rate was seen in patients referred from Primary Care Clinics (2.3%). Injecting drug use was the predominant risk factor in patients referred from the Wards, but unprotected sex was more common among those referred from Specialist Clinics and Primary Care Clinic. Injecting drug use was more likely to be associated with HIV positivity than unprotected sex (31.8% versus 15.5%). Our study showed that risk factors and HIV positive rates were rather variable in the various subgroups receiving HIV pre-test counselling in UHKL.

**Key Words:** HIV, Injecting drug use, Pre-test counselling, Risk behaviour, Unprotected sex

## Introduction

Human immunodeficiency virus (HIV) infection is a rapidly emerging problem in Malaysia. Since the first reported case of AIDS in University Hospital, Kuala Lumpur (UHKL) in 1985, 11,175 HIV positive cases has been reported to the Ministry of Health up to 31 December 1994<sup>1</sup>. The majority of these cases were detected through testing of prisoners, residents of drug rehabilitation centres and sex workers. Data from the Ministry of Health has shown that 79.4% of HIV positive cases were due to sharing of contaminated needles and only 4.3% were acquired through heterosexual intercourse<sup>1</sup>. The low figure of HIV/AIDS cases acquired heterosexually could well be an under-estimation due to the selective nature of screening.

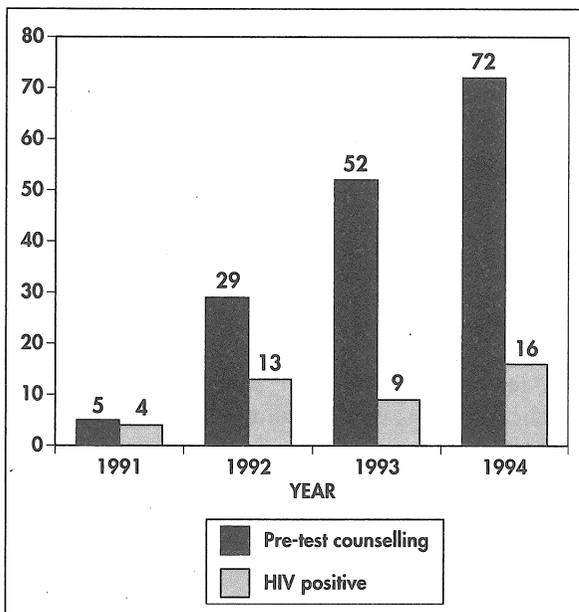
Since there is no report of systematic serological survey of HIV infection in the general population in Malaysia<sup>2</sup>, no accurate figure on the incidence and prevalence of this problem is available. We feel that patients undergoing HIV testing in hospitals and clinics would provide some useful data on the relative prevalence among the different high risk groups. In this retrospective review of patients referred to the Medical Social Worker and AIDS counsellor at University Hospital, Kuala Lumpur for HIV counselling, we documented the profile of patients who received pre-test counselling, specifically their demographic data, risk factors and prevalence of HIV infection in the various risk behaviour subgroups.

## Method

In UHKL, confidential but non-anonymous pre- and post-test counselling for HIV has been available since 1985. The counselling is mainly provided by a trained counsellor following the generally accepted guidelines<sup>3,4</sup>. The AIDS counsellor keeps separate case records of those patients she has counselled. The data for this study was obtained from the medical records of patients who were referred to the AIDS counsellor for HIV counselling during a four-year period from January 1991 to December 1994. The information obtained from the records included socio-demographic information as well as risk behaviour which were recorded at the time of counselling. The relevant data were entered into a questionnaire and analysed.

## Results

One hundred and fifty-eight patients were referred for pre-test counselling from January 1991 to December 1994 (Fig. 1). They constituted about 5.5% of patients who had HIV test done in UHKL over the study period. There was little difference in the number of patients counselled from month to month. One



**Fig. 1:** Number of patients given pre-test counselling and HIV positive cases detected from 1991-1994

hundred and sixteen patients tested negative, while the remainder (42) tested positive (positive rate of 26.4%). Sixty-eight patients who tested negative did not return for a post-test counselling by the AIDS Counsellor but all those who tested positive received post-test counselling.

The median age of those receiving pre-test counselling was 28 years (range, 2-69). One hundred and thirty-five (85.4%) were between the ages of 20 and 44 years. Only 2 patients were less than 12 years of age (aged 2 and 8 years). These children were counselled together with their parent.

One hundred and twenty-four (78.5%) were males. The racial composition of the patients was as follows: Chinese 64 (40.5%), Malay 50 (31.6%), Indian 40 (25.3%) and Others 4 (2.5%). Majority of the patients were single (58.9%); the married group was the next largest group at 32.3%. Only 17 (10.7%) had received college or tertiary education, while most of the remainder had attended either primary (41, 25.9%) or secondary (95, 60.1%) education. Fifty-two patients (32.9%) were unemployed and the remainder had a mean income of RM787. Seventy-three (83.7%) of the employed patients had income of RM1000 or less.

Most of the patients came from Kuala Lumpur (59, 37.3%) or Petaling Jaya (53, 33.5%); however a sizeable proportion also came from elsewhere in Selangor state (28, 17.7%). Only 14 (8.9%) were from other states in Malaysia. Two were not Malaysian citizens.

Table I shows the source of referral of the patients to the AIDS counsellor. The majority of the patients came from the Wards and the Primary Care Clinic, which is the UHKL General Outpatient Clinic. High HIV positivity is noted in cases referred from Wards and Specialist Clinics.

Forty-six patients had sexually transmitted diseases (STDs) at the time of counselling. The conditions included syphilis (primary or latent), gonorrhoea and urethral discharge. Twenty-seven patients referred from Primary Care Clinic had STDs. Forty-five patients were either current or past injecting drug users. In 4 patients the HIV test was requested because of administrative reasons such as taking up

CHARACTERISTICS OF PATIENTS REFERRED FOR HIV PRE-TEST COUNSELLING

**Table I**  
**Source of referral and HIV positivity**

Source of Referral	No. (%) given pre-test counselling	No. of patients tested positive
Accident and Emergency Unit	4 (2.5)	0
Wards	52 (32.9)	36
Primary Care Clinic	88 (55.7)	2
Specialist Clinics*	12 (7.6)	3
Blood Bank	1 (0.6)	0
Self-referred	1 (0.6)	1
Total	158 (100.0)	42

\* Includes mainly Genitourinary Medicine Clinic but there were also cases from Orthopaedic, Surgical, Eye clinics.

**Table II**  
**Risk factors of patients and HIV positivity#**

Risk Factors	HIV negative	HIV positive	Total
None	7	0	7
Injecting drug use	14	30	44
Unprotected sex*	93	17	110
Homosexual and bisexual	5	1	6
Exposure to blood products	4	2	6
Others**	4	0	4
Unknown***	0	1	1
Total	127	51	178

# Numbers refer to number of risk factors (20 patients had two risk factors).

\* Unprotected sex is taken to mean sexual intercourse outside the marriage/stable relationship or with sex workers and without the use of condoms.

\*\* Include finger prick injury at work, sexual assault, spouse of injecting drug users.

\*\*\* This is a two-year-old boy whose source of infection was uncertain because he was adopted.

insurance policy and work permit requirements. One hundred and eleven patients presented with medical illness ranging from non-specific symptoms like headache, backache to symptoms suggestive of complications of AIDS such as *Pneumocystis carinii* pneumonia.

Table II shows the risk factors of the 158 patients and their HIV status. The seven patients who did not have an identifiable risk factor were tested negative. The most common risk factors were injecting drug use and unprotected sex. The former was much more likely to test positive than the latter. Unprotected sex was

defined as heterosexual intercourse with either sex workers or persons who were not a spouse or long term sex partner without the use of the condoms.

Of the 151 patients with risk factors, 20 patients had two risk factors. Nine out of the 20 patients with two risk factors tested HIV positive (positive rate 45%). Among these 20 patients with 2 risk factors, 10 patients who used intravenous drug and practised unprotected sex. Seven out of these 10 tested positive.

Table III compares the main risk factors and sources of referral to the AIDS counsellor. Intravenous drug use was the commonest risk factor among those patients referred from the Wards, but unprotected sex was the most common risk factor among patients referred from Primary Care Clinic or the Specialist Clinics.

### Discussion

The demography of patients who had received pre-test counselling for HIV infection shares some of the characteristics of patients seeking treatment in UHKL. They comprise people from the three main ethnic groups who live in Klang Valley. They are mainly from the lower or middle social class. One notable feature of this group is the high proportion in the age range 20-44 which is the economically productive adults.

Primary Care Clinic contributed the most number of patients. However, despite the presence of risk factors, only two patients referred from Primary Care Clinic tested HIV positive. This may be due to the fact that there were relatively fewer injecting drug users among the patients referred from Primary Care Clinic (Table III). In contrast, in the Wards and Specialist Clinics, where patients with HIV-related symptoms or complications were more likely to be found, there is a much higher proportion of HIV positive cases. It should be noted that the Accident and Emergency Unit referred very few patients for pre-test counselling even though the risk factor profile of patients seen there is unlikely to differ substantially from those seen in Primary Care Clinic.

Forty-two out of 158 patients referred for pre-test counselling were HIV positive, giving a positive rate 26.6%. The high proportion of positive cases here reflect the self-selection exercised by patients seeking health care in this tertiary teaching hospital. Many patients presented with physical symptoms though not all of them had symptoms or signs of AIDS-related complications. Our figures showed that 46 patients had current sexually transmitted diseases and 45 patients were either current or past injecting drug users. All except 7 patients admitted to have one or more risk factors. Another reason that could have explained the high proportion of HIV positive cases among those

**Table III**  
Comparison of the risk factor and source of referral to the AIDS counsellor#

Risk Factors	Source of Referral				Total
	Wards	Primary Care Clinic	Specialist Clinics	Other Sources	
None	3 (0)	4 (0)	0	0	7 (0)
Injecting drug use	32 (28)	10 (1)	0	2 (1)	44 (30)
Unprotected sex	20 (14)	75 (1)	10 (2)	5 (0)	110 (17)
Others*	6 (3)	7 (0)	3 (1)	1 (0)	17 (4)
Total	61 (45)	96 (2)	13 (3)	8 (1)	178 (51)

# Numbers refer to number of risk factors (HIV positive cases in brackets).

\* This include homosexual/bisexual behaviour, exposure to blood products, needle stick injury, sexual assault and unknown (one case).

referred is that patients who were judged to have a high chance of being positive are probably more likely to be referred to the professional counsellor. This can be inferred from the fact that only about 5.5% of patients who underwent HIV testing in UHKL were referred for pre-test counselling.

The reasons why HIV tests were requested in the first place could not be determined in this retrospective study. However, we noted that in four patients, HIV tests were done for administrative reasons such as insurance requirement and medical check-up. We believe most patients who needed HIV testing for such purposes could have consulted general practitioners instead. Twenty-seven patients referred from Primary Care Clinic had STDs, reflecting the awareness of the relationship between STDs and HIV infection among the primary care doctors.

Of the various risk factors associated with HIV infection, unprotected sex and injecting drug use were most commonly encountered in the three major ethnic groups. Unprotected sex was the most common risk factor for those referred for pre-test counselling but injecting drug use is also very common. Homosexual or bisexual behaviour appeared uncommon but this could be due to reluctance of such patients to come for testing because of the lack of anonymity in our centre. Hong and Berger have shown that anonymous clinic is more likely to receive homosexual subjects than non-anonymous HIV testing clinic<sup>5</sup>. Not surprisingly patients who had two risk factors were more likely to be HIV positive, especially if one of the risk factor included injecting drug use.

It should be noted that more than half of those who tested negative did not turn up for a post-test counselling by the AIDS counsellor. It is likely that this group of individuals probably felt adequately reassured by the negative result after receiving counselling from their own doctors.

We noted increasing number of referral for counselling over the 4 years that is consistent with increasing awareness of HIV infection in the general population and among the doctors in UHKL. However, we did not detect any significant difference from month to month, and specifically no substantial increase in the number of referrals at the end of the year. Beck *et al*<sup>6</sup>, however, has documented a dramatic increase in the number of patients requesting HIV testing in a London STD clinic at the end of the year coinciding with the World AIDS Day when there is intense public education campaign in the mass media. Several reasons could explain the lack of this year-end peak at UHKL, namely the lack of anonymity and perceived lack of confidentiality of HIV testing and the long waiting time in a busy public hospital and most of the HIV testing was doctor initiated rather than patient initiated.

### Conclusion

Our data showed that patients who received pre-test counselling in UHKL are a rather heterogeneous group. They include patients with HIV-related complications, those with current sexually transmitted diseases and finally people who are completely asymptomatic but nonetheless possess certain high risk behaviours or who were anxious over perceived risks. High numbers of referral from Primary Care Clinic suggests that doctors here are aware of the risk of HIV infection especially among those with current STDs. Early detection, not only of positive cases but also those with high risk behaviour at primary care level together with appropriate counselling incorporating risk reduction strategies could be an effective means to control the spread of HIV infection<sup>7</sup>. Unprotected sex is almost as common as intravenous drug use among the HIV positive cases and might even overtake the latter as the main risk factor in the future.

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