

Short Communication

Prevalence of HIV positive blood donors among screened volunteers who satisfied the criteria for blood donation in a semi-urban Nigeria population

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Two thousand five hundred and thirty two (2,532) males, aged 25 – 50 years potential blood donors were randomly selected from the total number of volunteer blood donors who satisfied the initial screening criteria for donating blood, and were screened for HIV using Immunocomb II (HIV 1 and 2 Bispot) and Recombigen HIV-1/HIV-2RTD. Results from the study reveal that this procedure of screening volunteer donors by initial criteria alone does not fully eliminate all HIV positive donors. The prevalence of HIV positive donors among the screened volunteers who satisfied the criteria for blood donation was 0.87%.

Key words: Prevalence, blood donor, hiv positive and semi urban population.

INTRODUCTION

Sub-Sahara Africa is the region that is most affected by AIDS (UNAIDS, 2004; Fredrikson and Kanabus, 2005 and HIV and AIDS 2003). HIV/AIDS have devastating effect on life and socio-economic activities (Fredrikson and Kanabus 2005). Sustained efforts are on in some sub-Sahara African countries such as Senegal, Zambia, South Africa and Cote d'Ivoire (Fredrikson and Kanabus, 2005; HIV and AIDS, 2005) to prevent and lower the rate of HIV/AIDS scourge. Similar activities towards this end are being carried out in Nigeria by the Presidential Committee on AIDS and the National Action Committee on AIDS (NACA) (2004).

There is a dearth of information on the prevalence of HIV among volunteer blood donors who satisfy the pre HIV test criteria alone to qualify for blood donation in the Nigeria population. However Ogundipe (2005) reported that blood transfusions account for 10% of the various routes of HIV transmission. Many health institutions (excluding those of tertiary institutions) use the pre HIV

test criteria (Kleinman, 2005) without performing the biochemical tests for screening blood donors. Pre HIV test criteria include: screening measures to protect the donor, medical history interview for heart and lung disease, seizures, recent surgery, pregnancy, minimum age for blood donation of 17 or 18 years, minimum weight requirement of more than 50 kg (110 pond), medical evaluation of the time of donation, vital signs, blood test for anemia, and sequence of donation of blood of once every 56 days (Kleinman, 2005). Screening measures to protect the recipient (such as careful selection of donation site, elimination of incentives for donation, screening for HIV (Kleinman, 2005) are often neglected by many centres.

We have therefore designed this study to investigate the desirability or otherwise of the use of the pre HIV test criteria alone for the selection of blood donors, and its attendant global implications.

MATERIALS AND METHOD

2,532 potential volunteer male blood donors from Ile-Ife, a suburban population from South Western Nigeria, out of those initially screened using the pre HIV test criteria were randomly

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selected for the study. This study spread over a period of one year. They were all screened for HIV using immunocomb II (HIV 1 and 2 Bispot) and Recombigen HIV-1/HIV-2RTD (Beelaert, 2002; Des Jarlis, 1984). 5 ml of blood was withdrawn from each potential blood donor and the serum separated. Immunocomb II and Recombigen were used to assay each serum. The HIV positive potential blood donors were all confirmed by the Western Blot.

RESULT AND DISCUSSION

Of the 2,532 potential blood donors earlier screened with the pre HIV test criteria, 22 were found to be HIV positive, a prevalence of 0.87%. Our finding points to the desirability of biochemical screening of blood donors for HIV. Most clinics (excluding those of tertiary institutions) in Nigeria eliminate HIV positive donors through history taking or elimination of blood donors with history suggestive of HIV (Kleinman, 2005). However, our result reveals that this procedure does not fully eliminate all HIV positive donors and this practice may increase the spread of HIV through transfusion of blood from blood donors inadvertently screened as HIV negative with concomitant global implications.

REFERENCES

- Beelaert G (2002). Comparative evaluation of eight commercial enzymes linked immunosorbent assays and 14 simple assays for detecting antibodies to HIV. *Journal of virology methods* 105 (2): 197-206.
- Des Jarlis DC (1984). Antibodies to a retrovirus etiologically associated with acquired immunodeficiency syndrome [AIDS] in populations with increased incidences of the syndrome 33: 337-379.
- Fredriksson J, Kanabus A (2005). HIV and AIDS in Africa. <http://us.f524.mail.yahoo.com>
- HIV and AIDS (2003). Sub-sahara Africa statistics, [www.avert.org.subadults.htm](http://www.avert.org/subadults.htm).
- HIV and AIDS (2005). The impact of HIV and AIDS in Africa.
- Kleinman S (2005) Patient information: Blood donation and transfusion <http://www.update.com/>
- Ogundipe S (2005). Hospitals to pay fine for transfusing HIV infected blood. *The Vanguard* www.vanguardngr.com.
- Presidential Committee on Aids and National Action Committee on AIDS (2004). Assessment of HIV/AIDS care in the public and private sectors. Partners for Health Reform plus (PHR plus).
- UNAIDS (December 2004): AIDS epidemic update.