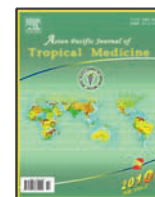


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# Perception and attitude of theatre staff to preoperative HIV testing at the University of Port Harcourt Teaching Hospital

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## ABSTRACT

**Objective:** To elucidate the awareness and approach to pre-operative human immunodeficiency virus (HIV) testing and emphasis on the attendant components of HIV testing. **Methods:** The study was conducted at the theatres of the University of Port Harcourt Teaching Hospital among 123 nursing, anaesthetic, and operating staff. A descriptive cross sectional design was adopted with stratified sampling. The study instrument was a structured, self administered pro forma. **Results:** All respondents were all aware of HIV infection and all had transmission through infected blood and tissues (100.0%). 88.6% had infection through needle stick injuries, 62.6% through vertical transmission, and 98.4% through blood transfusion. Sixty three percent of respondents correctly knew what preoperative testing was, while 58.5% were aware of the preoperative testing policy of the hospital. All respondents favoured the policy of preoperative testing. Attitudinal values to seropositive patients were not very different as 72.4% of respondents claimed they treated every patient as high risk, and all respondents used personal protective equipment. **Conclusions:** Routine HIV testing now represents a conventional means providing patients with knowledge of their HIV status. Such testing should be accompanied by informed consent, counselling, confidentiality, protection, and access to treatment.

## 1. Introduction

Infection by the human immunodeficiency virus (HIV) ultimately results in a anthology of symptoms referred to as acquired immune deficiency syndrome (AIDS)<sup>[1]</sup>, and it now affects estimated 40 million people globally<sup>[2]</sup>, making it the greatest human public health problem<sup>[3,4]</sup>. Sub-Saharan Africa, which has only 10% of the world's population, has 66% of infected individuals<sup>[3]</sup>, and most of the morbidity and mortality from HIV/AIDS occurs in the third world, where it is presently the commonest cause of death<sup>[5,6]</sup>.

HIV is transmitted through direct contact of a mucous membrane or blood with any body fluid containing the virus, such as blood, semen, vaginal fluid, and milk<sup>[7,8]</sup>. Transmission occurs from patient to health worker and from patient to patient through the health worker as a result of poor sterilization techniques, needle stick injuries<sup>[9]</sup>, etc.

Due to the advance in treatment with highly active antiretroviral therapy (HAART), the scourge of HIV seropositivity has been reduced to a manageable chronic

disease<sup>[10–12]</sup>, but firstly patients must be tested to confirm seropositivity<sup>[13,14]</sup>. HIV testing is the basis of effective HIV prevention and treatment, especially in resource constrained setting<sup>[13,15]</sup>. The World Health Organization (WHO) has estimated that up to 180 million persons worldwide would need testing to identify patient eligibility for HAART<sup>[16]</sup>, and so launched a HAART up-scaling initiative to provide three million patients with HAART by 2005<sup>[17]</sup>. The WHO also recommended the routine offer of HIV testing in different clinical situations, like in preoperative situations. These recommendations, however, specifically enjoined that testing be accompanied by counselling, confidentiality, protection, informed consent, and access to treatment<sup>[18–20]</sup>.

Our national policy on HIV/AIDS<sup>[21]</sup> embody these recommendations either in part or completely, as there has been a tremendous increase in HIV testing, as routine testing is now done in different clinical situations, especially preoperatively. This represents a fundamental departure from the traditional voluntary counselling and confidential testing (VCCT)<sup>[20]</sup>. Fortunately, this increase in testing has not always been followed by counselling, confidentiality, protection, informed consent, and access to treatment, as different studies have highlighted<sup>[22–26]</sup>.

The present study attempts to elucidate the awareness and

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approach to pre-operative HIV testing by theatre staff of the University of Port Harcourt Teaching Hospital (UPTH).

## 2. Materials and methods

The study was conducted at UPTH main and obstetric theatres. Inclusion criteria were theatre nursing staff (trained nurses and ward maids), anaesthetic staff (anaesthesiologists and anaesthetic technicians), and operating staff (surgeons and obstetricians/gynaecologists). A descriptive cross sectional design was adopted and a stratified sampling method was used, with a working sample size of 130 (sample size of was estimated using the Kish formula<sup>[27]</sup>). The study instrument was a structured, self administered pro forma. On account of attrition, only 123 returned questionnaires were analyzed for this study. The data obtained were analyzed using SPSS<sup>[14]</sup>.

The following data were obtained and analysed: the demographic features (sex, cadre), the knowledge status (of HIV transmission, of hospital preoperative HIV testing), attitudinal values (towards seropositive patients, towards preoperative HIV screening policy) and practical issues (use of universal safety precautions, avoidance of risky aspects of job).

## 3. Results

The respondents comprised 80 females and 43 males. 4 aged from 30 to 35 yrs (3.3%), 44 aged from 36 to 40 yrs (35.8%), 36 aged from 41 to 45 yrs (29.3%), 29 aged from 46 to 50 yrs (23.6%), 8 aged from 51 to 55 yrs (6.5%), and 2 aged from 55 to 60 yrs (1.6%).

They comprised 61 trained nurses and ward maids (49.6%), 41 surgeons and obstetricians/gynaecologists (33.3%), and 21 anaesthesiologists and anaesthetic technicians (17.1%). They were all aware of HIV infection and 123 had transmission through infected blood and tissues (100.0%). 109 were aware of infection through needle stick injuries (88.6%), 77 through vertical transmission (62.6%), and 121 through blood transfusion (98.4%). Eighty three respondents (67.5%) correctly knew what preoperative testing was, while 72 (58.5%) were aware of the preoperative testing policy of the hospital.

All respondents favoured the policy of preoperative testing. 100 thought it primarily was a means of prevention of transmission to them (81.3%), 66 thought it was opportunity to know status (53.7%), and 39 thought it as holistic management of the patient (31.7%). 63.5% knew what preoperative testing was, while 58.5% were aware of the preoperative testing policy of the hospital. 27.6% of respondents stigmatized seropositive patients, while 26.8% avoided certain aspects of their job considered risky. Attitudinal values to seropositive patients were not very different as 89 (72.4%) respondents claimed they treated every patient as high risk.

All respondents employed the universal safety precaution irrespective of HIV status, and all respondents used personal protective equipments (PPE) but 33 respondents (26.8%) agreed to have avoided certain aspects of their job considered risky.

## 4. Discussion

All 123 respondents in this study were aware of HIV infection and its transmission through infected blood and tissues, favoured the policy of preoperative testing, and employed the universal safety precautions.

Majority of the study population were aged 36–55 years, and this age group has been shown to be most vulnerable group of health workers to HIV transmission<sup>[28–30]</sup>. The global incidence of HIV has been shown to be on the rise, with more than 16 000 new cases daily<sup>[2,31]</sup>. This study shows owing to the fact the theatre nurses, a female preponderance form a majority of the study populating, corroborating the findings of earlier hospital based studies<sup>[28,29,32]</sup>.

The result highlights the fact that HIV transmission is largely seen as an occupational hazard by health workers, who are usually well-informed enough to remain seronegative as previous research reported<sup>[28]</sup>. The high level of awareness in this study is consistent with previous studies<sup>[33–36]</sup>. Routine testing in our study seems to be strongly practised to protect health care workers, and not for public health reasons<sup>[37]</sup>. The results in our research overwhelming favour the pre-operative testing policy because it was a means of prevention of transmission to them. Thus routine testing may have unwanted effects such as reduced access to health care services<sup>[38,39]</sup>. The attitude to seropositive patients is not as poor as reported in other studies<sup>[36,37,40,41]</sup>, since seropositive patients are largely accorded equal rights and privileges as other patients.

Proper holistic HIV testing programmes should encompass informed consent, counselling, confidentiality, protection, and access to treatment. These programmes require enormous resources<sup>[38]</sup>, especially in our resource poor setting. The programme in our centre cannot be as holistic, akin as those in other health institutions<sup>[2,22]</sup>. An overwhelming majority of the study population supported preoperative testing as reported in Greece<sup>[42]</sup>, the United Kingdom<sup>[43]</sup>, and Nigeria<sup>[29,32]</sup>. Concerns are raised, as earlier highlighted, that such overwhelming support of routine testing primarily stems from protection of the health worker<sup>[37]</sup>, not geared towards provisions for the patient, making such wonderful policies prone to abuse such as denial of health care delivery<sup>[22]</sup> or mandatory testing<sup>[41]</sup>.

Contemporarily, emphasis has been placed on preventing HIV transmission as a way of curtailing the disease. Since pre-operative testing represents a means of routine HIV testing thus providing patient with knowledge HIV status (and subsequent counselling, care, and access to treatment where applicable), and health worker with measures to prevent patient to hospital worker transmission.

We recommend pre-operative HIV testing but also advise that testing be accompanied by informed consent, counselling, confidentiality, protection, and access to treatment.

## Conflict of interest statement

We declare that we have no conflict of interest.

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