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# What a great blunder: Unknowingly disregarding the standard testing protocol for a patient exposed to a possible HIV infection

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## Abstract

The world globally is presently saddled with a pandemic that started un-announced but subtly and progressively become a world-wide health concern. This is the general sequence of the Covid-19 pandemic that started locally in one city but had spread to affect all nations of the world with a loud roar.

Human Immunodeficiency Virus (HIV) infection likewise started as a localized unexplained disease manifestation which was aggressively investigated and the causative virus was eventually identified and subsequently isolated. What initially seemed then to be a local disease was eventually reported gradually over-time to be seen all over the world. It was seen in both males and females and the original questions' was to ascertain the routes of the spread of the virus between humans and possibly other primates, and to identify the reservoirs of the now known causative organism of the new human disease.

On a regular basis, the sign and symptoms of the disease were manifesting and reported and several routes of transmission identified and reported. Among such numerous routes include but not excluding having unprotected sexual intercourse, transfusion of untested tainted blood donated by an active carrier of the virus, inadvertent needle pricks of a health worker, sharing of needles and syringes by drug abusing persons, unsterile tatooing instruments, use of common manicure/pedicure instruments.

Rape or Sexual Assault (SA) is a problem that is reported from all nations of the world. It is probably grossly under reported, and can even be described as a pandemic because of its world-wide spread. The activities of SA has been known to be capable of transmitting disease from one person to the other, and HIV can be transmitted from the assailant to the victim and/or vice-versa of the victim is the infected one. It is based on this revelation of a potential transmission of HIV through this route that a protocol of testing of victims of this horrific crime was developed. So, what happens when a victim was not properly tested, the assailant not seen and not tested, the victim not placed on the available post-exposure prophylaxis but was re-assured and told "not to worry" that "all is well" and sent away.

**Keywords:** Rape; HIV Testing; Post-Exposure Prophylaxis

## 1. Introduction

During the just concluded national strike by the National Association of Resident Doctor (NARD), the flow of patients to the Out-Patients Department (OPD) of a popular hospital in the South-South geographical region was only marginally affected as the patients kept coming despite the reduction in the number of doctors that were available to attend to them. The waiting time for the patients was prolonged but surprisingly, most of them did not complain except for a few

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that became irritated by the extended waiting time, but what do you expect when one doctor is seated to attend to the teeming number of patients.

These doctors consulting in the different clinics were over-worked and often stressed out by the numbers of patients that they had to attend to. This unwholesome stress coupled with the cacophony from equally stressed-out patients may lead to a poor or reduced attention to details by the doctor. Both young and old doctors alike need to remember that the act of attending to patients, making a diagnosis ordering for appropriate investigations and lastly giving adequate treatment is not an "act of the fastest and the best". There is no price given for the one who sees the greater number of patients. In other words, doctors must attend to a patients, and given him ample time: listen to him talk, ask questions and get answers; examine him and request for investigations if need be. It is not speed and reduced waiting time that is of essence but how well such patients are reviewed that matters.

It is in this hurried circumstance that a victim of sexual assault presented and the standard protocol was completely abandoned and not followed and the young girl was re-assured that all is well with her and was sent away. She of course believed the doctor and went away and is now lost to follow-up; not that a follow-up visit was requested for by the doctor, she was discharged from the clinic as "well patients" and to be seen again at anytime that she may have any medical problem.

### 1.1. History of the patient

On one of those busy clinic days, in the unusually poorly staffed General Out-Patients Department (GOPD), a young twenty-two years old fragile looking girl came for consultation. She reported that she was raped by a close friend, a fellow student in the higher institution where the both were studying. The said male friend now a rapist was even her reading partner, a "trusted" colleague as it seemed. She did not know that he had a different agenda in mind all these while. Apparently, in an unguided time, the young man pounced on her and sexually assaulted her. She reported that this was her first sexual encounter as she had been a virgin all along. Her pains was double fold, the physical pain of a forceful sexual activity, and the emotional psychological pains of being a rape victim and been unconventionally introduced to sex.

Anyway, she endured the trauma and reported the case to her religious priest by the following day and the priest advised her to go to the clinic and see a doctor. She complied and came to the GOPD by the following morning. Of note is that all of these amounted to just below 48hours following the assaults. No report was made to the law enforcement agencies, and this count for one of the several unreported cases of rape in our society.

The doctor on duty listened to her story and examined her and noted a small midline tear/laceration on her introitus which she said occurred during the rape as she was sure that it was not there before now. She admitted that she had seen the abrasion when she examined herself using a mirror.

She was then sent to do VDRL testing for syphis and HIV I and II after counseling and consent given. In fact she said that her priest had told her that these tests will be done and so she was prepared to do them.

The results came back as negative to her and everyone relief. But therein lies the misconception and the deception of wellness.

She ought to have been advised to bring or tell the assailant to come for testing himself. This might not happen as the young man will definitely not come to the hospital as he might suspect that a trap had been set to get him arrested. Also, she should have been assessed for her eligibility into a post-exposure prophylaxis and possibly started on the regimen.

Also, she should have been told about "window period" for HIV infection and that she is now negative for HIV does not mean that the fear of infection is over. This would have necessitated for a serial HIV testing for a period of time. All of these informations are in the standard protocol for sexually assaulted victims.

Instead, she was told that all is well, that she stat HIV test is negative, then reassured and was given some irrelevant analgesics and heamatinics and told to go home. That all is well with her, and to ensure that she avoids that young man by all means. There was no mention of how to ensure that she does not get pregnant from this exposure.

All is well, and she left feeling satisfied with the consultation. But is all truly well with her? What about the incubation window period for HIV infection, and consider the possibility that the un-tested young man may just be an un-diagnosed

carrier of the virus. Should she have been given post exposure prophylaxis to be taken until further testing proves that she was not infested and then the medications can be stopped.

All of these are properly stated in the protocol for the prevention of diseases in sexually assaulted patient and in injuries of health care workers in hospitals.

The attending doctors did not do any of these, probably because he was over-worked and stampeded by the number of patients that he had to see alone, maybe or maybe not.

Does he even know of what to do in such cases, the steps to take?

Any which way, the victim-patient had been discharged from the hospital, the assailant is free roaming freely among other vulnerable female students who he might attack. Is he positive for HIV or other sexually transmitted diseases. Nobody knows and infact nobody knows his identity. Is he positive or negative, and is it possible that he just could be spreading the disease unknowing not knowing his status. Too many questions, no answer.

## 2. Discussion

The disease entity known as Acquired Immune Deficiency Syndrome or AIDs is caused by a recently isolated virus called Human Immune deficiency Virus (HIV)[1]. There are two recognized variants of this virus known as HIV I and HIV II.

The virus is known to penetrate the human T Lymphocytes which is an arm of the active immune defence cells of the human body.

The infested T. Lymphocytes, otherwise known also as CD4 cells are killed by this invading HIV and they die off and the result is the lowering of the defence system or immune system of the victims. The victims are subsequently exposed and vulnerable to several opportunistic infections and to the development of several exotic cancers[1].

The virus usually gets into the body of a victim when the body fluids of an infested persons get in contact or into that of a non-infested person.

These body fluids includes fresh blood, semen from the man, vaginal secretions, anal secretions of fluids, breast milk and several others[1].

Therefore, the virus has been reported to be transmitted when contact with the sex organs of both males and females, even via anal sexual contacts or via transfusion of untested but infected blood or blood products[1].

The most common way of getting the infection is through having unprotected sex especially with different partners and by sharing needles by intravenous drug/substances abusers[1,2].

Therefore, forced sexually activity as in rape is usually traumatic and may lead to tear of the vaginal lining, multiple abrasions from fingernails or human bite by the assailant.

All these leads to enhanced viral penetration and increased chances of getting infected if the assailant is an infected person. This was the state of the index patients when she came to the clinic, she had a tear on her introitus and having been a virgin, the rupturing of her hymen would have lead to bleeding which further exposed her to a greater virus penetration.

And she was let to goll. The status (HIV) of the assailant was not determined and the victim with all of the above qualified to been enrolled into the post-exposure prophylaxis and serial testing over a period of time.

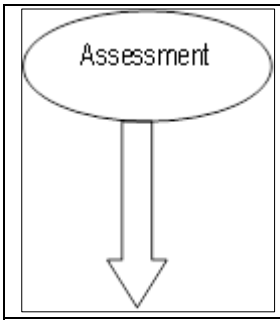
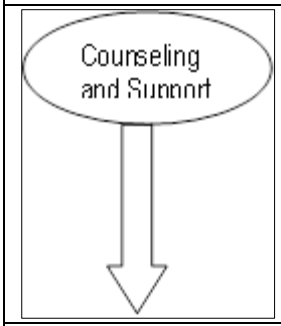
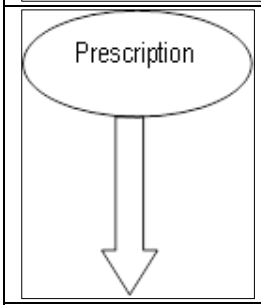
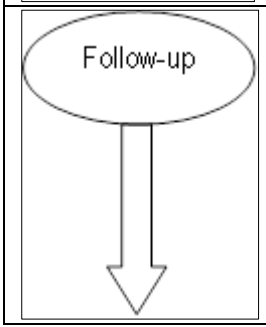
The World Health Organization (WHO) advises that post-exposure prophylaxis (PEP) should be offered, and initiated as early as possible, to all individuals with exposure, that has the potential for HIV transmission, and ideally within 72hours of the dead[3].

Exposure that may warrant PEP include parenteral or mucous membrane exposure such as in sexual exposure, splashes, of fluids to the eyes, nose or oral cavity [2].

To determine if one qualities for PEP, the HIV status of the sources need to be known [2,4], but in the index case, we never get to know.

Based in these, the WHO developed an algorithm for testing the exposed person

**Table 1** WHO testing protocol

| | |
|---|---|
|  | • Clinical assessment of exposure<br>• HIV testing of exposed people and the source if possible<br>• Provision of first aid in case of broken skin or other wounds<br>• Eligibility assessment for HIV PEP |
|  | • Risk of HIV<br>• Risks and benefits of HIV PEP<br>• Side effects<br>• Specific supports in case of sexual assaults<br>• Enhanced adherences counseling if PEP to be prescribed |
|  | • PEP should be initiated as early as possibly following exposure<br>• 28days prescription of recommended age-appropriate ARV drugs<br>• Drug information<br>• Assessment of underlying co-morbidities and possible drug interaction |
|  | • HIV test at 3months after exposure<br>• Link to HIV treatment if possible<br>• Provision of preventive intervention as appropriate[3,5] |

There are sexual researchers that suggested that if a health-care worker (as a point of contact), that had been exposed to possible HIV infection should have the testing done as soon as possible after the exposure, and then retested 6weeks post-exposure and on a periods' basis of 12weeks, and 6weeks after exposure to determine if transmission had occurred [4,6,7,8]. And the source patients should be tested immediately after the exposure. The index lady qualified for the initiation of PEP and further testing but was not offered this service.

This is not surprising as it was reported that very few health care providers had any prior training on post-rape management and this manifested on the displayed low level of knowledge by the attending doctor in this case [9].

The report went further to say that their findings showed that only 44% of doctors in their survey knew that post-exposure prophylaxis must be started within 72hours of an assault or other kinds of exposure.

Also, they discovered that this percentage was even lower among practising nurses (15%) and Law Enforcement agents such as the Police (24%)[9].

The aim of this self-reporting blunder is to help educate our health care provider on the need to be more alert and offer more professional assistances to such as may need our expertise.

## 3. Conclusion

In conclusion, Sexual assault/rape is grossly under reported and is an means of transmission of HIV infection and other sexually transmitted diseases. This case highlights the importance of using the WHO standard protocol for the patients exposed to the risk of HIV infection.

## Compliance with ethical standards

*Disclosure of conflict of interest*

The authors have no conflicts of interest.

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