ATTITUDE OF NURSES IN A BURN UNIT TO HIV/AIDS BURN PATIENTS

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SUMMARY. The human immunodeficiency virus (HIV) and the acquired immunodeficiency syndrome (AIDS) have constituted a major challenge and concern worldwide. This is especially true among health workers who have to take care of such patients. This paper is aimed at studying the attitude to HIV/AIDS burn patients of nurses working in a burn unit. The work was carried out at the burns unit of the National Orthopaedic Hospital in Enugu, Nigeria. In a cross-sectional descriptive study, 125 questionnaires were distributed among nurses working in the burn unit. All the 120 nurses who responded were aware of HIV/AIDS: 80.8% of them believed that the prevalence was high, 93.3% that they could be infected while taking care of the patients, 91.5% that all burn patients should be screened for HIV, and 41.4% that their knowledge of the patients’ HIV status would affect their professional duty to them; 31.1% would not want to dress the wounds of known HIV/AIDS burn patients. We conclude that there is a need to educate nurses and indeed all health care workers on adherence to universal precaution rather than routine screening for

Introduction

The acquired immunodeficiency syndrome (AIDS) pandemic has become a major global health problem with a rising number of cases and associated deaths.1 In the 1980s, the AIDS epidemics spread globally and in particular hit sub-Saharan Africa.2 An HIV/AIDS prevalence of 31% in patients admitted to a burn unit in Malawi has been reported,2 which is similar to that noted in their trauma unit and in women attending antenatal care3 and reflects the prevalence in the general population.

The prevalence of HIV in Nigeria shows an increasing trend.4 According to the Federal Ministry of Health’s publications and the 2001 National HIV survey in Nigeria, 3.47 million people are estimated to be living with HIV/AIDS; 4.5 years is the estimated decrease in life expectancy due to HIV/AIDS, and the estimated number of AIDS orphans is 847,000.5 The fear of HIV/AIDS is therefore not only among the populace but especially among health workers who have to take care of these patients, with increased risk of exposure.

A burn patient is a seriously injured patient who needs extensive nursing care with wound dressings, nasogastric tube feeding and aspiration, care of peripheral and central venous lines, etc. All these increase the nurse’s contact with the patients’ blood and body fluids, thereby increasing the possible risk of being infected while taking care of HIV/AIDS patients.

The increased risk of exposure to HIV-positive patients and their body fluids, in uncontrolled situations, is of concern to health care workers in the emergency room and trauma setting.6

Therapy affects recovery in burn injuries. The immediate application of appropriate therapy, plus proper nursing care, influences the final prognosis.7

What is the level of the knowledge of nurses in burn units about HIV/AIDS? What is their attitude towards HIV/AIDS patients treated in burn units? Would knowledge of a patient’s HIV status affect the quality of care given by the most involved group of caregivers in a burn unit? These are the questions this paper sets out to answer.

Materials and methods

Questionnaires were prepared and distributed to all nurses involved in the care of burn patients in the burn unit of the National Orthopaedic Hospital in Enugu, Nigeria, in April 2004. This is a 5-bed unit that serves the whole of the eastern part of Nigeria, with a population of over 10 million.

Routine HIV screening of burn patients is not the practice in this unit.

Questions were asked assessing the general knowledge of the nurses about HIV infection, its possible prevalence in our environment, and the possible ways of getting infected while taking care of burn patients. The effect that knowledge of a patient’s HIV status would have on the quality of the patient’s care by the nurses was also inves-
tigated. The data were then collated and analysed with the SPSS V 10 and EPI Info v 6 statistical packages.

Results

One hundred and twenty questionnaires were returned out of 125 sent out. There were 15 male respondents (12.5%) and 104 females (86.7%); one did not indicate the sex. Final-year student nurses constituted the largest group of 100 (84.7%), followed by 8 staff nurses (6.8%), 4 nursing sisters (3.4%), and 5 matrons (4.2%).

All respondents were conscious of the disease entity called HIV/AIDS. Ninety-seven (80.8%) believed that HIV/AIDS prevalence was high in Nigeria, while 16 (13.3%) believed prevalence was low; 7 (5.8%) did not know the prevalence.

One hundred and twelve (93.3%) of the nurses believed they could be infected with HIV virus while managing HIV/AIDS patients compared with 7 (5.8%) who did not think they could be infected; only one did not know whether or not she could be infected.

Suggested sources of infection included: blood, 118 (98.3%); wounds, 111 (92.5%); gastric contents, 32 (26.7%); saliva, 27 (22.5%); urine, 28 (23.3%); and faeces, 21 (17.5%) (Table I).

<table>
<thead>
<tr>
<th>Suggested source of infection</th>
<th>Number of nurses (total = 120)</th>
<th>Percentage of nurses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood</td>
<td>118</td>
<td>98.3</td>
</tr>
<tr>
<td>Wound</td>
<td>111</td>
<td>92.5</td>
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<tr>
<td>Gastric contents</td>
<td>32</td>
<td>26.7</td>
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<tr>
<td>Saliva</td>
<td>27</td>
<td>22.5</td>
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<tr>
<td>Urine</td>
<td>28</td>
<td>23.3</td>
</tr>
<tr>
<td>Faeces</td>
<td>21</td>
<td>17.5</td>
</tr>
</tbody>
</table>

One hundred and eight (90%) of the nurses felt that all burn patients should be screened for HIV, 10 (8.3%) did not think that every burn patient needed to be screened, and 2 (1.7%) did not know whether or not they should all be screened. Sixty-one nurses (50.8%) believed that knowledge of the patients' status would not affect their duties to them, while 48 (40%) believed that knowledge of the patients’ HIV status would affect their professional duties to the patients; 11 nurses (9.2%) were not sure that such knowledge would affect their duties.

Eighty-two nurses (68.3%) would still dress the wound of an HIV-positive patient in spite of such knowledge, 37 (30.8%) would not want to dress the wound of a known HIV/AIDS patient, and just one 1 (0.8%) did not know whether or not she would be able to dress the wound of an HIV/AIDS patient.

Suggested methods of precaution while taking care of HIV/AIDS patients included the wearing of gloves (106 = 88.3%) and gowns (6 = 5%). Other suggestions included the use of separate instruments/equipment for HIV/AIDS patients (25 = 20.8%), use of facemasks (23 = 19.2%), avoidance of applying dressings if the nurse has open wounds (25 = 20.8%), and thorough soap washing of hands after dressings (22 = 18.3%). Other precautions are listed in Table II.

<table>
<thead>
<tr>
<th>Precaution</th>
<th>Number of nurses (total = 120)</th>
<th>Percentage of nurses</th>
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<tbody>
<tr>
<td>Wearing of gloves</td>
<td>106</td>
<td>87.5</td>
</tr>
<tr>
<td>Use of separate instruments/equipment</td>
<td>25</td>
<td>20.8</td>
</tr>
<tr>
<td>Avoid dressing if you have open wounds</td>
<td>25</td>
<td>20.8</td>
</tr>
<tr>
<td>Thorough soap washing of hands after care</td>
<td>22</td>
<td>8.3</td>
</tr>
<tr>
<td>Use of gowns</td>
<td>6</td>
<td>5.0</td>
</tr>
<tr>
<td>Use of facemasks</td>
<td>25</td>
<td>19.2</td>
</tr>
<tr>
<td>Cover all cuts wounds on the nurse</td>
<td>16</td>
<td>13.3</td>
</tr>
<tr>
<td>Careful handling of blood secretions</td>
<td>8</td>
<td>6.7</td>
</tr>
<tr>
<td>Proper sterilization of instruments after use</td>
<td>8</td>
<td>6.7</td>
</tr>
<tr>
<td>Use of aprons</td>
<td>8</td>
<td>6.7</td>
</tr>
<tr>
<td>Avoid sharp needle pick</td>
<td>6</td>
<td>5.0</td>
</tr>
<tr>
<td>Barrier nursing isolation of HIV/AIDS patients</td>
<td>15</td>
<td>12.5</td>
</tr>
<tr>
<td>Dress wounds carefully</td>
<td>14</td>
<td>11.7</td>
</tr>
<tr>
<td>Use of goggles</td>
<td>2</td>
<td>1.7</td>
</tr>
<tr>
<td>Proper and careful disposal of wastes</td>
<td>3</td>
<td>2.5</td>
</tr>
<tr>
<td>Use of disposable instruments</td>
<td>5</td>
<td>4.2</td>
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</table>

Discussion

The HIV/AIDS epidemics in Nigeria have reached the point where it is estimated that one person dies of AIDS every two minutes (i.e. 800 Nigerians per day!). Estimates published in 2001 predicted that, by the end of 2002, 1.4 million Nigerians would have died of AIDS since the start of the epidemics and that by 2005 an additional one million would die if little or nothing was done. Statistics indicate that in 5.3% of health workers with AIDS the cause cannot be determined. This is in contrast with figures regarding all other persons with AIDS, a group in whom only 2.8% of cases - a statistically significant difference - were contracted from an undetermined cause. Health care workers, by reason of their jobs, are therefore at higher risk of getting infected with HIV than the general population.

One of the most difficult to resolve ethical problems facing health care workers today is the care of HIV-infected and full-blown AIDS patients. This is all the more true of burn patients, who commonly have many exudates from their burned skin: this can be a source of risk to health care work and especially to nurses in charge of...
dressings and other care of such patients.

All the nurses in our burns unit were aware of the disease entity called HIV/AIDS. Ninety-seven of them (80.8%) agreed that the prevalence of HIV was high in Nigeria and 112 (93.3%) believed they could be infected by the disease while taking care of the patients, while only 7 (5.8%) thought they could not be infected while taking care of these patients. One nurse was not sure she could be infected while performing her duty. There was therefore a high level of awareness of both the disease HIV/AIDS and the possibility of nurses getting infected in a burns unit.

Suggested possible sources of infection are as shown in Table II, with blood being considered the commonest source of infection, followed by wounds. However, some of the nurses erroneously believed that saliva, urine, and faeces of HIV/AIDS patients could also be sources of infection.

Universal precautions are included for pleural, peritoneal, pericardial, and cerebrospinal fluids in addition to blood. This does not apply to faeces, saliva, urine, sputum, and vomitus, unless blood is present. Reports have shown that seroconversion can often occur after non-parenteral exposure, and epidermal Langerhans cells have been shown to harbour HIV and can transmit the virus to other haemopoietic cells. The need to wear a sterile face mask, gown, and gloves, plus other precautions suggested by nurses in this study (Table II), cannot be overemphasized as part of the universal precautions.

As regards knowledge of the patients’ HIV status and the quality of care given by a nurse, the number of nurses whose professional duties towards the patients might be affected by knowledge of their HIV status was quite high in this study: 48 of the nurses (40%) believed that knowledge of the patients’ HIV status would affect their professional duties, and 37 nurses (30.8%) would not like to dress the wounds of an HIV/AIDS patient. This means that a number of HIV/AIDS patients might suffer neglect as a result of their HIV status.

The screening of patients in high-risk groups or settings has been rejected since the implementation and enforcement of standard infection control guidelines would be protective. However, most of the nurses in this study (108 = 90%) felt that all burn patients should be screened for HIV, 10 nurses (8.3%) thought that not every burn patient needed to be screened, and 2 nurses (1.7%) were not sure they would want the patients screened.

The medical, legal, and ethical problems associated with routine HIV screening have led to the recommendation that all patients should be presumed to be seropositive and thus that protective measures should be taken by all health workers. This is all the more the case in a centre such as the one in this study, where some nurses may discriminate against HIV/AIDS patients. Education on the universal precautions and strict adherence to them would help both the caregivers and the patients.

Conclusion

While the prevention of the spread of HIV is essential in controlling AIDS epidemics, health workers and administrators must actively care for more than 36 million people worldwide who are already infected with the virus. There is a clear moral and humanitarian obligation to provide whatever care, support, and assistance are appropriate or feasible for every person infected and affected by HIV/AIDS. Not only will suffering be reduced and quality of life improved but economically and socially productive activity is likely to be prolonged for people infected with HIV. Avoidance of discrimination, respect for individual autonomy and human dignity, and the need for informed consent are all of direct relevance to HIV care. The need therefore exists to continue to educate health care workers on the challenge that HIV/AIDS presents to our caring ability, while we make all efforts to protect ourselves.

RÉSUMÉ. Le virus de immunodéficience humaine (VIH) et le syndrome de l’immunodéficience acquise (SIDA) constituent un important défi et une source de préoccupation universelle. Cette observation vaut en manière particulière pour ce qui concerne les opérateurs de la santé qui doivent soigner cette catégorie de patients. Les Auteurs de cet article se sont proposés d’étudier l’attitude envers les patients brûlés atteints de VIH/SIDA observée parmi les infirmiers qui travaillent dans une unité des brûlures. Cette étude a été effectuée à l’Unité des Brûlures de l’Hôpital National Orthopédique à Enugu (Nigeria). Dans cette étude descriptive, faite sur la base d’échantillons, les Auteurs ont distribué 125 questionnaires parmi les infirmiers qui travaillaient dans des unités des brûlures. Tous les 120 infirmiers qui ont répondu étaient au courant du VIH/SIDA: 80.8% croient que la prévalence est élevée; 93,3% qu’ils risquent l’infection quand ils soignent les patients; 91.5% que tous les patients brûlés devraient être testés pour le VIH; 41.4% que la connaissance de l’état du patient par rapport au VIH modifierait leur devoir professionnel à son égard; et 31.1% ne voudraient pas panser les lésions des patients brûlés l’on connaît atteints de VIH/SIDA. Les Auteurs concluent qu’il faut instruire les infirmiers et, en effet, tous les opérateurs dans le champ des soins médicaux sur l’importance d’adhérer totalement aux précautions universelles plutôt que sur un des tests de dépistage pour le VIH imposés à tous les patients brûlés, parce que la connaissance de la condition du patient pour ce qui concerne le VIH peut déterminer un comportement discriminatoire à son égard.
BIBLIOGRAPHY


This paper was received on 11 November 2004.

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