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HIV-positive status among surgeons – an ethical dilemma

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HIV/AIDS is a manageable disease with a reasonable expectation that affected individuals might be able to experience both reduced mortality and morbidity. Within the socio-political context of the illness there has been a very strong emphasis on human rights issues, especially in relation to discrimination, which has seemingly been influenced more by emotion than science. This article explores and addresses the potential risk of an HIV-positive surgeon transmitting the virus to a patient. We argue that the Centers for Disease Control (CDC) and Health Professions Council of South Africa (HPCSA) guidelines are too restrictive, especially against a background of limited transmission risk, and hence that these guidelines could be more harmful than beneficial to our health systems.

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The emergence of HIV/AIDS has had a powerful impact on society, in both the developed and developing worlds.[1] South Africa has the highest estimated number of people living with HIV/AIDS in the world (5.3 million as of the end of 2003), with a prevalence rate of 21.5% compared with a global rate of 1.1%, and with an estimated 370 000 South Africans having died of HIV/AIDS in 2003.[2] Enormous scientific energy and funding has seen the emergence of an AIDS industry dedicated to both prevention and treatment. Such efforts have yielded tremendous advances that have turned a killer disease into a condition that is manageable, with a reasonable expectation that affected individuals might be able to experience both reduced mortality and morbidity, even those with advanced AIDS.[3] Within the socio-political context of the illness there has been very strong emphasis on human rights issues, especially in relation to discrimination, which has seemingly been influenced more by emotion than science. To some extent the issue of discrimination in South Africa would appear to be addressed in Section 9 of the Bill of Rights of the Constitution of the Republic of South Africa[4] and in the Employment Equity Act,[5] which censure unfair discrimination. However discrimination remains, even within the scientific community where the risk of infection has resulted in reluctance to treat HIV-positive individuals.[6] Aside from moral arguments, scientific evidence has not been able to support such a position. But what of the HIV-positive health care worker (HCW), such as a surgeon? Here we are confronted with a somewhat different scenario, but involving the same issue, i.e. the risk of HIV transmission during a procedure. Does the patient have a right to know the status of the surgeon? Does the employer have a right to know? Is the surgeon obliged to disclose, and to whom is the surgeon expected to disclose his/her status?

With regard to the Employment Equity Act,[5] although in chapter II Section 6(1), discrimination on the basis of HIV status is technically unlawful, Section 6(2)(b) states that excluding

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'any person on the basis of an inherent requirement of a job' is not unfair discrimination. Further, in terms of Section 7(2) the Act states that if the Labour Court (in terms of Section 50(4) of the Act) deems it justifiable, then testing of an employee to determine his/her HIV status is not prohibited. So while there is an apparent non-discriminatory ethos in the Employment Equity Act,[5] such a position is not absolute. It is possible, it seems, that in certain instances legislation may impose mandatory HIV status testing and disclosure on an employer. The specific section of the Act, 50(4), states that the Court may make an order as appropriate in the circumstances, imposing conditions related to the job 'in respect of which authorization for testing applies'. This implies that as a consequence of their HIV status, limitations may be placed on employees with regard to the nature of the work they may undertake.

In pursuit of answers to the questions posed one might adopt an approach governed by policy, influenced by ethics and morality, or guided by scientific evidence. Whichever approach one adopts, it would appear that the central issue relates to risk and ultimately informed consent, the argument being that in order for patients to make fully informed decisions to consent to a procedure, they should have at their disposal information related to all risks they face while undergoing that procedure. The clinician's HIV status may be construed as a potential risk. The specific risk is that of virus transmission. This issue will be explored and addressed with regard to the HIV-positive surgeon.

Virus transmission in the health care setting

The risk of virus transmission is a critical issue for a host of reasons. Firstly, containment of the illness requires transmission control, i.e. identifying modes and routes of transmission, informing the population accordingly, and implementing and monitoring programmes and policies designed to contain spread. This would generally relate more to person-to-person transmission within a social context. However, the possibility of fluid exchange in intimate but non-social, professional settings has introduced a more contentious element into a situation vulnerable to emotion-driven responses. While the initial focus regarding risk in the medical setting was protective of the HCW, awareness of the emergence of HIV-positive HCWs has broadened the scope of such concerns to include patient safety. This is potentially no less emotion laden, requiring sober reflection of the evidence at hand to support or refute concerns and accordingly influence action. The emotion in question appears to be fear, based on the legitimate concern that in the process of treatment no harm be done through HCW-to-patient transmission of the virus. Concerns shifted towards HCW-to-patient transmission in the wake of the much-publicised Florida (USA) dentist transmitting HIV to a patient.[7] There has only been 1 subsequent instance of HCW-to-patient transmission reported, specifically involving an orthopaedic surgeon in France.[7]

Guidelines

Following the initial reports of HCW-to-patient transmission, it was deemed necessary for the Centers for Disease Control and Prevention (CDC) to issue guidelines for HIV-positive HCWs. The CDC guidelines[8] are quite specific with regard to preventing transmission not only of HIV but also of the hepatitis B virus. Along these lines one should bear in mind that amid the apparent 'hysteria' surrounding HIV, the reality is that blood-borne pathogens include forms of viral hepatitis (B and C) and that transmission of at least 20 pathogens by needlestick injury or injury with a sharp instrument has been reported.[9] Compared with HIV, hepatitis B appears to be not only more prevalent among HCWs, but also more contagious and potentially more dangerous in terms of HCW-to-patient transmission.[7] The CDC recommendations[8] were that there be adherence to universal precautions (hand-washing, protective barriers, care in the use and disposal of needles and sharp instruments, optimal infection control practice), that HCWs performing exposure-prone procedures should know their HIV status, that HIV-infected workers should *not* perform exposure-prone procedures unless they had consulted an expert review panel which would advise on performing procedures, and that patients be informed of the HCW's HIV status before performance of such procedures. Mandatory testing was not recommended in the guidelines because it was felt that the guidelines as set out would lead to HIV-positive professionals concealing their status.[8,10] The guidelines were later criticised for promoting discrimination and ruining the careers of certain HCWs,[11] with others questioning whether the recommendation that surgeons either restrict their practice or inform patients of their status had any value.[12] It is interesting to reflect on how many such clinically active HIV-positive surgeons there are, aware – or not – of their status and performing life-altering and life-saving procedures.

On discovering the diagnosis and condition of an employee (a surgical technician with AIDS), a Michigan hospital in the USA offered him alternative work not involving direct patient contact. The employee refused. He was subsequently dismissed, having turned down the alternative employment position a second time. This led to his initiating legal action against the hospital for wrongful dismissal. The basis of his legal claim was framed within the context of both the Americans with Disabilities Act and the Rehabilitation Act. Both of these Acts (USA)[13] specifically exclude individuals who pose a direct threat to others in terms of health and safety. The plaintiff lost on the basis of the CDC guidelines which stated that HIV-positive workers should not be allowed to perform exposure-prone procedures. Such procedures were in this instance determined by the hospital concerned, and

the court agreed.[13] Based on this matter it seems clear that while no binding standard is set by the legal system *per se*, the courts will uphold standards set by recognised medical bodies such as the CDC. Hence the emerging debate on the restrictiveness of such guidelines. A review of various other guidelines both from the UK and the USA demonstrated no consensus regarding informing patients of HCWs known to be infected and practising.[14] In addition, the Society for Healthcare Epidemiology of America (SHEA),[15] while in agreement with universal precautions and infection control measures as recommended by the CDC, is opposed to any measures that restrict clinical practice or that impinge on clinician privacy or confidentiality. In the UK it must be noted that the General Medical Council stated in 1998[16] that where a doctor is aware of a 'serious and identifiable' risk to an individual by virtue of that individual not knowing the HIV status of someone who might pose a threat of infection to him/her, the doctor has an obligation to inform the threatened party, i.e. to break the confidentiality of the person whose HIV status is known to the doctor. Where the person whose HIV status is known to the doctor is a fellow doctor, e.g. a cardiac surgeon, the doctor 'has a duty to inform an appropriate body'.[16] However, the issue turns on the remainder of the statement related to the 'serious and identifiable risk', which posits that the person potentially at risk 'would be exposed to infection'. Would they? The Health Professions Council of South Africa (HPCSA) Guidelines for the Management of Patients with HIV Infection or AIDS (**http://www.hpcsa.co.za/hpcsa/userfiles/file/ProfessionalGuidelines.doc**) recommend that while infected practitioners may continue to practise, they must seek and implement advice from counsellors on the extent to which they should limit or adjust their professional practice in order to protect their patients. Moreover, counsellors involved in the management of HIV-infected HCWs should be familiar with the CDC guidelines.

Risk

Research into patient exposure to HCW blood, cited by the CDC,[8] found that this might occur in about one-third of such incidents, i.e. in the case of percutaneous injuries, which were found to occur in about 7% of all procedures performed in a range of surgical disciplines. Estimates of the chance of a patient contracting HIV from invasive procedures have been determined by the CDC as 1:263 000 - 2.6 million from dental surgery, and 1:41 000 - 416 000 from general surgery, in the decade before 1991, without universal precautions being applied.[17] A risk analysis of acquiring HIV from an HCW demonstrated that this was 2 000 times less likely to occur than death resulting from a car accident, and 700 times less likely than perishing as a result of being struck by lightning or suffering a fatal fall.[18] It was further noted that if the then CDC guidelines for HIV-positive HCWs were implemented, the AIDS epidemic would be reduced by 0.0006%.[18]

Understandably, these data led to questioning the value of the existing guidelines. Research into transmission of HIV from known HIV-positive HCWs to patients established a zero transmission rate from worker to patient for surgeons and dental workers.[8] Further, a study conducted by the CDC of 53 HIV-positive HCWs demonstrated no transmission to the 22 759 patients under their care.[19] In addition, at a time where antiretroviral treatment is both available and effective in terms of reducing viral load and infectivity,[20] the risk to patients (if it indeed exists) would appear to be even further reduced.

South Africa and the CDC guidelines

Between 1997 and 2001 an estimated 13% of deaths among HCWs in South Africa were as a result of AIDS.[21] It has been projected that a country with a stable 15% prevalence rate could expect to see 1.6 - 3.3% of its HCWs die of AIDS each year, resulting in a cumulative mortality rate of 8 - 16% over 5 years.[22] In a 2002 survey, the HIV prevalence rate among HCWs in both private and public facilities was 16%.[20] This figure correlated with the adult HIV prevalence rate reported in the Nelson Mandela/Human Sciences Research Council (HSRC) 2002 household survey.[21] The HIV prevalence rate among HCWs in South Africa, increasing in line with the trend in the general population, will have significant implications for this sector, with need for service far outstripping supply.[23] Three out of 4 HCWs reported an increase in their workload and one-third reported that their workloads had increased by 75%. The value of the CDC guidelines, including the need to inform one's patient of one's HIV status before an exposure-prone procedure, is highly questionable in the South African developing world context, especially in light of research demonstrating zero transmission from HCW to patient.[8] A detailed study of surgical patients operated on by a surgeon who was HIV-positive revealed that in 369 person-hours of surgical exposure (invasive surgical procedures) there was no HIV transmission.[24]

Physicians should be encouraged to take responsibility for their own health and to behave responsibly within their clinical practice. While the requirement of universal precautions and prevention of transmission of blood-borne pathogens is central, the emphasis should be on physician responsibility, with the only restriction on practice being where it is determined that a given physician by virtue of either mental or physical impairment is incapable of conducting him/herself in a responsible manner. In South Africa, the HPCSA has clear guidelines for impaired physicians. Inherent to such an approach is the respect for clinician privacy and a specific rebuttal of the requirement for disclosure to either patient or employer – not least of all because current recommendations pose a human rights threat to clinicians while not contributing to patient safety.[25,26] Similar sentiments were expressed in the early 1990s regarding the potential harm to clinicians, the lack

of benefit to patients and the probability that such guidelines would do nothing to prevent the spread of HIV infection.[27,28]

The extent to which the AIDS epidemic would be reduced by removing all HIV-positive medical personnel from the workforce is miniscule. This must be balanced against the numbers of patients who might suffer or die as a consequence of inadequate service delivery resulting from attrition of such personnel. A utilitarian perspective would most certainly argue against removal of HIV-positive personnel. There is limited likelihood that surgeons would undergo voluntary testing which might lead to restriction of their ability to practise. That being the case, the CDC[8] requirement of restriction within the context of HIV-positive status is self-defeating. That individual surgeons should know their status is not in dispute, but whether they should be obliged to disclose their status is. To what extent the latter would confer benefit on patients is not clear as such research appears non-existent within the context of HIV. Further, such disclosure, against a background of limited risk of HIV transmission, may add to the complexity of decision making on the part of the patient with regard to the proposed surgery. How does one reconcile science, policy and ultimately ethics? Given that we exist in an increasingly evidence-based world, science must guide both policy and ultimately ethics by virtue of informing the most beneficial and least harmful practice in a given situation. With regard to bioethics, such a position has been actively promoted, as opposed to often-encountered ethical writing based on unproven assumptions.[29]

Conclusion

An understandable yet seemingly unjustified concern exists regarding HCW-to-patient transmission of HIV. In adopting CDC policy the HPCSA guidelines, with their quasi-legal status, could be more harmful than beneficial to health systems. This is especially so given that there has been a recent call to disclose policies to patients in terms of respect for autonomy.[30] In light of the increasing number of HIV-positive HCWs, revision of such guidelines is called for, taking into account both scientific evidence and the local South African context. Science should both inform policy and guide morality, including the dilemma regarding the HIV-positive surgeon.

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