

DISCLOSURE OF DOCTORS WITH HIV/AIDS ON ANTIRETROVIRAL THERAPY

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The Southern African HIV Clinicians Society initiated an online discussion forum on 'HIV Ethics and Policy' in 2007. The first case study concerned the ethical question of whether a surgeon with HIV/AIDS on antiretroviral therapy should have disclosed her HIV status to her patient when she discovered blood on the inside of the first of her double gloves after surgery. The case study, and some responses submitted to the forum, follow below.

CASE STUDY 1

AA is a medical doctor and practises in South Africa. While still in training some years ago, she had a needle-stick injury followed some weeks later by a seroconversion illness. At the time antiretrovirals (ARVs) were unavailable, and indeed the diagnosis was missed: it was the late 1980s and she was working in a mine hospital. Some years later AA discovered her HIV status while trying to obtain insurance cover. She was referred to Dr T a few years later when her CD4 cell count had fallen. Since the mid-1990s AA has been on ARVs – almost all available ARVs have been used over this 10-year period. In 2006, her CD4 count was above 500/ μ l and her viral load has been undetectable for many years.

In the middle of 2002, AA called Dr T to report that after doing a surgical procedure earlier in the day, she had noticed some blood on the internal glove during de-gloving. She had double-gloved and the blood was seen after the first glove was removed. When she took off the next glove, however, she could not find any laceration on her own finger (below the site of the blood on the glove), and she therefore assumed that the blood was the patient's and not her own. (The procedure had involved the insertion of a needle into a large vein in the neck of the patient, and had been uneventful apart from quite a bit of bleeding from the operative site. A nurse had had to compress the area for several minutes at the end of the procedure to arrest the haemorrhage.)

AA asked Dr T's advice on the following

- whether he thought she should inform the patient of the incident;
- was there any likelihood that the blood in the glove was actually hers, and

- might there be a possibility that the patient had been exposed to her blood and possibly to the HIV virus?

At the time, AA viral load was undetectable and she was on round-the-clock ARVs.

Dr T expressed the opinion that that it seemed unlikely that the patient had been exposed to the doctor's blood and that post-exposure prophylaxis (PEP) was not indicated for the patient. Disclosure to the patient would mean the possibility that the doctor's HIV status would become known beyond her immediate family and Dr T, and that her medical practice and livelihood might be jeopardised. It seemed that the risk to the patient was not significant or measurable. Dr T counselled against informing the patient of any risk and against initiating PEP.

Three months later Dr T was asked to see a patient who had recently been diagnosed as HIV positive. He was the man on whom the surgical procedure had been carried out by AA. Blood tests revealed recent exposure to the virus: initially negative HIV antibody tests (HIV Elisa) but with an extremely high viral load. The HIV Elisa subsequently became positive. The patient started on ARV therapy and has remained well. He noted that he had had a range of sexual partners, and believed that one of these might have infected him.

Some time later the patient returned to Dr T. He was perplexed. He had seen all of his sex partners, and each had tested HIV-negative. 'Doctor, where did I get this infection?' he asked Dr T. 'Do you think that it might have been at the time of the medical procedure some months earlier?' He recalled that there had been a lot of bleeding from his neck following the operation, and that a nurse had 'stuck her finger in the hole to stop the bleeding!' He asked whether he could have got the infection from the nurse.

Dr T has been unable to DNA-fingerprint AA's virus owing to its being undetectable. Dr T wanted to confirm resistance mutations that might identify whether the patient's and AA's virus are the same. The patient's viral genotype revealed a fully sensitive HIV-1 virus, and he has achieved viral suppression on first-line ARV therapy. AA had viral genotyping several years ago when she showed evidence of resistance. Her virus has multiple resistant mutants, and for some years now she has been maintained on 'salvage

therapy' with drugs that are currently unavailable commercially in this country.

1. What is the likelihood that the patient was infected by AA?
2. With the facts available to him, should Dr T have suggested that AA's patient go onto PEP?
3. Should AA disclose her status to the patient?
4. Should the role of the nurse and sexual partners help provide answers to the questions posed above?

CASE STUDY RESPONSES

A – SUBMITTED BY JOHN GOSLING

Given that AA's viral load is undetectable and her genotype appears to be different from the patient's (although her genotype had not been determined recently), and given the circumstances described related to the procedure, it seems unlikely that she is the source of the infection. For a variety of reasons it does not seem to me appropriate for her to reveal her status to the patient. Given the available facts, I would also support Dr T's decision not to recommend that the patient go onto PEP following the procedure.

The possible role of the patient's sexual contacts remains potentially problematic. It would appear that he does not practise protected sex. He claims to have checked with all his recent sexual contacts, but there is no guarantee that they are all being truthful about their status, and it is not clear if he found out when they had last had an HIV test. Furthermore, there is the question of the 'window period' following infection.

The following points related to the window period are informative. Antibody tests that are currently being used are more sensitive than those used in the past. Most people will develop detectable antibodies by 30 days after infection with HIV.^{1,2} Nearly everyone who is infected with HIV (99%) will have detectable antibodies by 3 months after infection.² It is rare for people to take longer than 3 months, but the possibility does exist.³

It is not clear when exactly the patient determined that he was HIV positive and how this diagnosis was made, as he was initially negative for HIV antibodies when tested by Dr T. Is it possible that his infection and subsequent seroconversion was more recent than the surgical procedure, given that most people will develop antibodies within 30 days? It seems to me that this is highly likely. One of his recent sexual contacts might have been in the highly infective window period, and had not yet tested positive. This seems a very real possibility to me.

The nurse who 'stuck her finger into the wound' to stop the bleeding may also be a potential source of the infection, though this seems unlikely. Was she wearing gloves (I assume

she was), and do we know her HIV status? (It would be unethical to insist that she disclose her status – she would need to reveal it voluntarily.)

B – SUBMITTED BY SUSAN BLACK

The doctor who was infected with HIV should not have been practising medicine that required scalpels, cutting or neck insertions, which can be very bloody. In this situation it would be difficult to see a small prick on one's finger.

Despite this:

■ *What is the likelihood that the patient was infected by AA?*
It is very unlikely that the patient got HIV from the doctor.

■ *With the facts available to him, should Dr T have suggested that AA's patient go onto PEP?*

Dr T should have advised PEP for the patient. Honesty is the best policy, and at least the doctors would have felt that every precaution had been taken in this case.

■ *Should AA disclose her status to the patient?*

AA should disclose her status to all her patients, and it is their decision whether or not they continue their care with her.

■ *Should the role of the nurse and sexual partners play a part in providing answers to the questions posed above?*

The role of the sexual partners and the nurse has no consideration in this case. Our concern is with the ethics of the doctors, and they were self-serving.

CONCLUSION – DAVID SPENCER

This is a difficult case. The replies from colleagues reflect the difficulty all of us have in deciding between altruism and self-interest. Neither AA nor her doctor were able to cross this line and simply tell the patient of the incident and offer PEP. There is a line here: doctors are also entitled to their privacy, and persons who are HIV positive are entitled to the maintenance of confidentiality. (And where there is a realistic chance of exposure and transmission, our patients need to be protected.) Confidentiality and privacy and individual rights apply as much to health professionals who are infected as to the general public. By informing the patient of his possible exposure to her blood, the doctor in this case would almost certainly have forfeited her right to privacy and possibly to the practice of her profession. Did the circumstances of this case justify the doctor placing herself and her family and her future ability to earn an income at such a risk?

The medical facts support the view that the virus was not transmitted through this exposure: the doctor's viral load was undetectable, the patient's virus demonstrated sensitivity to ARV agents to which the 'possible' source is resistant, and to the best of my knowledge there is no similar case resulting in transmission reported in the current scientific literature. It is generally accepted that exposure to blood in a hollow-bore needle carries a 0.3% risk of transmission and exposure to a blood splash on a mucous membrane or open lesion a risk of 0.09%, i.e. 9 in 10 000 exposures. The exposure described here

is ill-defined: whose blood was on the inner glove? The doctor had no visible laceration or source of bleeding. Blood at the site of the procedure is likely to have been the patient's: this is usually the case. The insertion of a central intravenous line, while at times bloody, seldom demands any protracted contact between patient and doctor. And during such procedures the doctor's finger is visible at all times: this was not deeply invasive surgery requiring the hands of the surgeon to be buried deep inside the patient's body. The likelihood of there having been sufficient opportunity for transmission of virus must be very small, probably less than that of a mucosal splash. How does one measure that level of risk? Is there really a risk?

In counselling for post-exposure prophylaxis it is important to be able to measure risk. The level of risk under the circumstances as described in this case does not appear to warrant PEP.

The patient is sexually active with multiple partners. That he asked them for proof of their HIV status suggests that risks had been taken in these relationships. Although these partners

all tested negative, we are not informed whether the patient had other partners during the period of likely exposure or whether there has been any follow-up of his partners subsequent to the initial tests. It would be important to clarify these matters, and one could still do this.

Should the doctor disclose her HIV status to her patients (and obviously then to the staff with whom she works, and to others with less personal interest in her well-being?) Clearly this is not necessary. (It may become necessary where the risk of exposure is definite and where PEP is clearly indicated.) Nevertheless the point is taken that the infected health professional must be encouraged to work in medical disciplines that require very little participation in invasive procedures.

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2. Lindback S, Thorstensson R, Karlsson AC, et al. Diagnosis of primary HIV-1 infection and duration of follow-up after HIV exposure. *AIDS* 2000; 14: 2333-2339.
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POLICY AND ETHICS REGARDING HIV DISCUSSION FORUM

'In an era of failed development projects, and economic policies gone bad, I sometimes feel very lucky as a physician, since my experience in Haiti has shown me that direct services are not simply a refuge of the weak and visionless, but rather a response to demands for equity and dignity!' – Paul Farmer

Have you ever wondered:

- Whether the AIDS epidemic in Southern Africa requires a different set of ethics?
- About the patient's dilemma when she has to choose between ARVs and losing her disability grant?
- Whether mandatory HIV testing is the new panacea, or a ridiculous polemic?
- About dual loyalties when faced with manifestations of government AIDS denialism?
- About the regulation of traditional health practitioners and the implications for AIDS care?

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