

POST-EXPOSURE PROPHYLAXIS

Charlene Smith is a senior journalist and published author.

She addressed the World AIDS Conference in Durban last year on post-exposure prophylaxis (PEP), and also chaired a session on women, violence and HIV. She is co-author of the CDC's new guidelines on PEP due out early in 2001.

Early this year (2001) the US Centers for Disease Control (CDC) will release revised guidelines and a more comprehensive protocol for antiretrovirals (ARVs) after rape to prevent HIV.

A large body of research emanating from France, South Africa, the USA and Denmark is proving that post-exposure prophylaxis (PEP) taken within 72 hours of rape, a needlestick injury, high-risk sex, or a blood transfusion reduces HIV transmission by 100%.

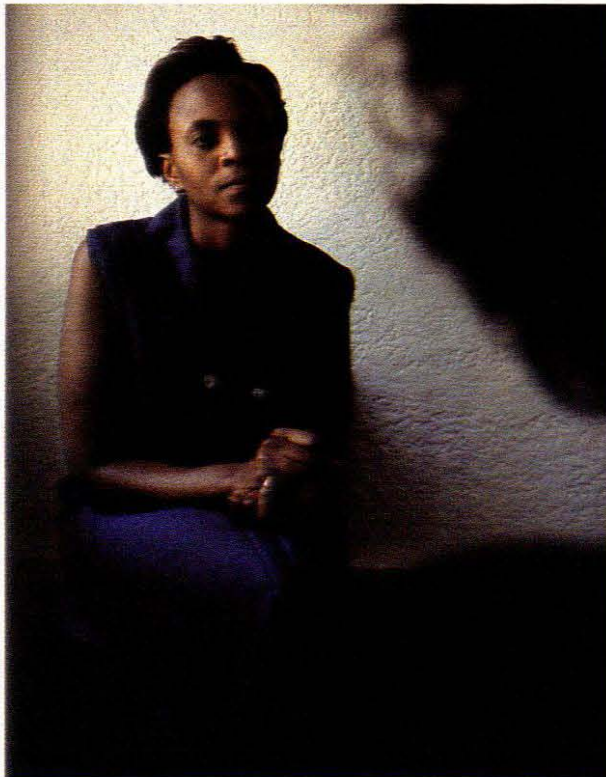
However, the South African media has been less than exemplary in pursuing research to establish the truth. In early November last year (2000), *The Star* published an article saying that AZT after rape was not effective and that no studies had been done to test that theory – when senior editor, Jovial Rantao, was alerted to the inaccuracy, he failed to correct it.

There is a wealth of information to prove that ARVs are not only effective, but that in populations with a high level of HIV infection their use after rape in adults and children is essential.

The CDC move is, in part, a response to the furore that occurred in 1999 after I was raped and followed their rudimentary guidelines for ARVs after sexual assault and began writing and speaking about the matter. The issue of HIV, rape and ARVs began receiving international attention that was accelerated when President Thabo Mbeki entered the fray and not only lashed out at AZT in December 1999, falsely claiming that the world's most widely used ARV was toxic, but then began questioning whether HIV caused AIDS. By June he and Tony Leon, leader of the opposition Democratic Alliance, had entered into lengthy nit-picking and often erroneous correspondence about PEP after rape and issues around AIDS, based largely on my writings and the 28 September 1998 CDC guidelines.

Mbeki maintained that it was highly unlikely that HIV could be transmitted during rape, and that if it was, ARVs would be ineffective. Research debunks this.

The first two lengthy letters were published in the *Sunday Times* on the eve of the World AIDS Conference in Durban in July last year in which Mbeki said I was either 'brave' or had 'racist rage' in suggesting that a high incidence of rape and an out-of-control AIDS pandemic were fuelled by culture, tradition and religion. (Regardless of the fact that the WHO, UNAIDS and other bodies have increasingly pointed that out, or that most religions are Western-based.)



I was subsequently leaked a 15-page follow-up letter from Mbeki, and linked to the first two, I faxed it to the WHO, UNAIDS and various AIDS scientists and researchers around the world, including Dr Michael Gottlieb who first identified the virus. I also used it as part of a presentation I made at the CDC in Atlanta in August 2000. But little in a globalised world happens in isolation.

Since late 1996 PEP has been given for high-risk sexual exposure in a number of locales, most commonly the USA and Canada, but what has been needed are studies

into its efficacy, and most particularly into rape.

In late 1998 Dr Josh Bamberger, a San Francisco doctor attached to its Health Department, began studying the impact of PEP after rape on more than 200 women. By October last year (2000), the State of California issued guidelines for PEP after rape based on the outcome of Bamberger's study (the full text of the California guidelines can be accessed under HIV: Antiretrovirals on the website www.speakout.org.za).

By June 1999 a similar study was underway in France. A study presented at the Durban AIDS conference in July

by scientists Jean-Pierre Benais and a team from France had identical results – of 100 rape survivors given ARVs from five Paris clinics since June 1999, not one had seroconverted. 'Two perpetrators were known as HIV-positive and the others refused testing.'

Data from Denmark published in July 2000 in the *American Journal of Physicians* from scientists at the National University Hospital Rigshospitalet and State Serum Institute in Copenhagen, showed that ARV treatment given to a 13-year-old child 50 hours after receiving a blood transfusion of HIV-infected blood from a donor with full-blown AIDS, saw the child test negative for HIV for more than a year after the transfusion. The child is still clear of infection.

Given this research and that from the USA, most particularly California, New York and France, which showed that HIV cannot be transmitted after rape if ARVs can be given, the CDC embarked on writing new guidelines for PEP after rape.

The CDC in Atlanta, USA is considered the most authoritative AIDS research organisation in the world. The 1998 CDC guidelines, based on needlestick injuries, suggested that triple therapy (such as AZT, 3TC and Crixivan) taken soon after a rape would probably ensure that 81% of patients would not become HIV-positive.

A growing body of research shows that AZT or similar ARVs are 100% effective after rape, and in the 28 days that a rape survivor takes those drugs she will experience minimal, if any, side-effects. No rape survivor who was HIV-negative on the day of the rape, and who takes ARVs after rape, develops HIV, even when it can be proved that his or her rapist or rapists were HIV-positive.

Research at Johannesburg's Sunninghill Hospital involving more than 300 rape survivors shows that not one seroconverted after using AZT and 3TC – a quarter were gang-raped.

The new CDC guidelines rely fairly significantly on the California guidelines. The California guidelines were in turn influenced by those from the New York State AIDS Institute for 'HIV prophylaxis following sexual assault' which have been in place since 1997.

The California guidelines note: 'PEP medications taken soon after exposure to HIV can prevent HIV infection ... The CDC's Hospital Infections Director has recommended that PEP be initiated within 72 hours for individuals with recent sexual exposure to HIV and the San Francisco's non-occupational PEP service uses 72 hours as its cut-off. In the sexual assault context, given the delay that commonly occurs between assault and medical treatment, the advisory panel recommends setting the cut-off for treatment initiation at the outermost acceptable limit.'

It also notes aspects of rape that increase risk: 'presence of blood; survivor or assailant with a sexual transmitted disease with inflammation such as gonorrhoea, chlamydia,

herpes, syphilis, bacterial vaginosis, trichomoniasis, etc.; significant trauma to survivor; ejaculation by assailant; multiple assailants or multiple penetrations by assailant(s)'

The CDC guidelines go into even greater detail, giving protocols for children and adolescents raped and gang-raped.

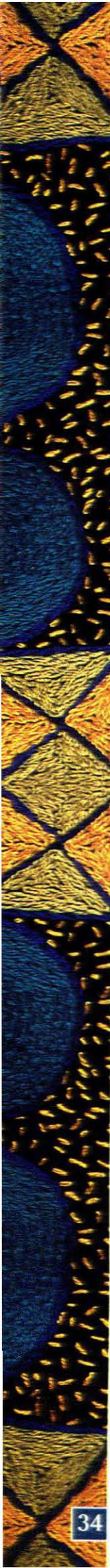
In his letter to Leon, Mbeki relied on data on receptive vaginal intercourse. Rape is non-receptive, or as I noted in my presentation to the AIDS Conference last year where I spoke on PEP: 'when I was raped last year, I was dry which meant there was greater genital injury, which facilitates infection if the rapist is HIV-positive. In the instance of a woman gang-raped in South Africa – which is true for 75% of women – more than one of her attackers may be HIV-positive, their viral loads will tend to be high, she may be infected with more than one strain of the virus, it is likely the assailants have sexually transmitted diseases and it is unlikely they are on treatment for HIV. The raped woman or child therefore may have multiple exposure to HIV.' In addition, post-traumatic stress disorder (PTSD), which all women experience after rape, depresses the immune system and gives the virus free rein.

In my experience children infected with HIV as a result of rape die quickly – within as little as 8 - 18 months. I am convinced that it is because PTSD so dramatically depresses the immune system that the child's body loses all defence mechanisms against the virus. The case of 14-year-old Felicia Lerumo of Mamelodi is an example. Felicia was raped by three perpetrators on new year's day 1998. Forensic evidence showed that she was a virgin at the time of the rape. The case was postponed 17 times. When Felicia developed severe flu after the rape no one tested her for HIV, nor when she developed tuberculosis. On the 17th time that she went to court, for yet another postponement, she was so weak her mother carried her on her back. Felicia died of AIDS in May 1999, 17 months after the rape, and the perpetrators were released because the courts said, 'the complainant is dead'.

Mbeki, in his letters, said there could be no research into the relationship between rape, HIV and ARVs because doctors would not allow so-called blind trials. But there were no such trials for needlestick injuries which medical staff rely on. A prominent CDC scientist noted: 'There's never going to be a randomized clinical trial to address the issue of PEP in the non-occupational setting, not only because it's not feasible (just like it was not feasible in the occupational setting), or ethical. It never happened in the hospitals, and will not happen in rape and child abuse crisis settings.'

In occupational exposure, mostly doctors or nurses who get so-called needlestick injuries where blood from an infected patient is splashed into an eye or accidentally transmitted to them through a cut or injection, no such trials were carried out given fears about HIV transmission, even though the risk in these instances of potential transmission is far lower than in rape.





Mbeki pointed out that ARVs do not say on package inserts that they can be used after rape. Yet few drugs carry all their uses on package inserts, even those for ARVs tend to be very long. The foreign scientist noted further: 'The point that the standards for recommending off-label use of a drug (using a drug that is not necessarily recommended for that use by manufacturers) should not be higher just because the indication is less or more popular. Estimates (for risk) are surrounded by broad confidence intervals and for all exposures (needlestick, sexual) and are modified by factors (such as injection of blood intramuscularly, for needlesticks, bleeding or trauma, STDs, for sex) associated with the exposure. The fairest representation of what the recommendations truly are, from all the organisations in the USA recommending PEP after rape, is that there are generally no good reasons for manufacturers to add indications for their products. Guidelines in the past may have exaggerated the risks of zidovudine (AZT) and minimized the potential benefits of PEP and the risk to survivors, and not put into perspective the elevation of risk associated with force, bleeding and high prevalence of STDs.'

Mbeki, querying the use of PEP, said, 'you might care to consider what it is that distinguishes Africa from the United States, as a consequence of which millions in sub-

Saharan Africa allegedly become HIV-positive as a result of heterosexual intercourse, while, to all intents and purposes, there is a zero possibility of this happening in the US'. In fact, the virus is moving fastest through young heterosexual Hispanic and African American communities in the USA at present.

In late October last year, the US House of Representatives passed a bill compelling those accused of rape to be tested for HIV if the person raped requests it. A similar suggestion was put forward by the SA Law Commission to Justice Minister Penuell Maduna in early December 2000. PEP or ARVs after high-risk sexual exposure are prevalent right across the USA and are given free, not only to those raped, but to those who might have had a high-risk sexual contact and panicked about their HIV risk in the morning. Dr Michelle Roland of the San Francisco Health Department says they sometimes give PEP to such people three or four times in a year.

At the end of it all we need to have measures in place for how to help women, children and families manage HIV in those survivors who seroconvert and become positive, or who are already positive on the day of the rape (see box).

IMPACT OF PEP AFTER RAPE

In the last days of December 2000 I received a note from a rape organisation which gives antiretrovirals to say that it was considering stopping the practice because so many women are HIV-positive on the night of the rape, and they hated having to tell the women that they are positive.

Estimates from Gauteng and the Western Cape show that around 22% of women are HIV-positive on the day they are raped, i.e. they were infected before the rape (30% in the Durban area and a claimed 66% in Mpumalanga).

I wrote back to the organisation as follows: 'Nothing causes greater sensitivity toward the perils of HIV than post-exposure prophylaxis after rape – or an awareness that there are forms of treatment. I am convinced that the rape of virgins is escalating the way it is (the Medical Research Council reported a doubling of child rape last year) – on the myth that you can cleanse yourself of HIV by raping a virgin – because of perceptions that there is no treatment (usually valid perceptions) and therefore people become desperate and dangerous, and our girl children carry the consequences.

'In every country where mother-to-child transmission is treated HIV figures start dropping because people become more knowledgeable about the disease, they learn modes of transmission, and myths, they know of tests, treatment and how to cope – or how to manage the virus afterwards, because everything lies in managing the virus.

'Let's deal with the negative woman or child first – she has survived a situation where she thought she might die, and now you are not going to do all in your power to guarantee life because some people feel squeamish about telling some people in the community that they are positive?

'If those involved in dealing with mother-to-child transmission adopted the same thinking we would not now have the means to save thousands of babies. None of the mothers who have tested HIV-positive have received medication to help them, but it saves the lives of their babies. But more than that wonderful HIV-positive women, some of whom have lost their babies, have become marvellous fieldworkers and AIDS activists. We have had thousands of women go through trials throughout the world with MTCT and that too has led to advances in medications, treatment and awareness of how to battle this dread disease most efficiently; and it is knowledge that does not only help the babies of those brave mothers. HIV-positive mothers who have taken part in trials have contributed to the knowledge that informs PEP after rape and other high-risk exposure. Thank God no-one became squeamish about telling those moms their status.

'I didn't want to find out after I was raped that I was positive either on the first night, or thereafter. None of us wants to be told we are facing a terminal illness at any time. But I believe, from my experience with many, many women, children and men raped that we are better able to cope with an HIV-positive prognosis in the early stages after rape than a diagnosis that follows months later – at a stage when we are starting to come to terms with the effects of the rape, and then all of a sudden the woman, child or man gets another whammy months later ... in a sense they are raped all over again. The rapist/s haven't left them, they return with the diagnosis of an HIV-positive status.

'In the first days after a rape we are so numb that we can cope, but not once we thought we were leaving the rape

behind. It would have been far harder for me to have seroconverted at 3 months, 6 months and 1 year when I believed I had a fighting chance than on the night of the rape where I felt so battered another set of bad news would have fitted the picture; or at 6 weeks where I had strongly prepared myself for a positive result — so much so that I battled to get a negative result to sink in.

'You cannot contemplate not giving PEP after rape to negative women, and to isolate only children, we absolutely must save the lives of our children and teenagers by giving them PEP — but what of the mother raped upon whom more than one child relies? You're not going to give PEP to her?

'The dilemma you quote is very real and is felt by everyone across southern Africa who is administering PEP after rape, from Botswana to Namibia to the various locales in South Africa, and indeed even in Europe and north America, although obviously the incidence of HIV is far, far lower in the latter countries.

'I think you have a choice, either to give the test results 3 days later, or at a follow-up checkup at 6 weeks, or do what Sunninghill has done and get the results out faster — they are able to do ELISAS within 8 hours. This means that the result can be given to the woman on the same day or the following day. I know there are difficulties with women returning, but perhaps the test can be done first, then the forensic exam, some counselling — but most importantly a place where she can clean herself, be given new clothes, shown how to take her medicines, and given the opportunity to have something to drink and to rest in a clean, comforting environment while results are produced. Either way you will know what suits the woman or child best at the time.

'Let's discuss other aspects: I am not sure that the woman or child raped will be aware that the HIV-positive result predates the rape. I have found awareness of this among my survivors — those educated and those not — to be zilch.

'Either way, this touches on one of the most important issues in this country and southern Africa, if not the continent: the shocking counselling pre- and post-test that takes place. I had no counselling before my test on the night I was raped — at a private hospital — but then again I was a difficult, informed patient who wanted to know because I wanted ARVs. Doesn't matter, I still should have been counselled. I've sat in with other survivors in hospitals, clinics and elsewhere and the pretest counselling is grossly inadequate — this is across the board, whether at private clinics, state hospitals or NGOs.

'Someone needs to sit down and say, do you want to have an HIV test because there is a risk you can be infected as a result of the rape; however, you may already be infected. Do you want us to do this — if you are not infected already there is medication we can give you which will probably ensure you do not get HIV, but if you are already infected, there is no medicine we can give you to take away the virus ... however, if you are infected now, or if your body seroconverts later we can put you in contact with AIDS support groups, we will advise you on eating and lifestyle changes (this is critical and no-one is doing it because we rely too much on Western notions of pharmaceuticals).

'You need to know from the time you are raped — whether or not you are HIV-positive to a year after the rape — that you must practise safe sex to ensure that you do not pass on HIV or any STDs from the rape to a partner (I don't know of any organisation that is telling women this — because in the end we tell women these things not just for them but to protect their partners now, or their partners to come, and if they want to fall pregnant at a later stage they need to know, it is a fundamental human right, not only the woman's but those she is involved with).

'And then of course there is lots more, but meeting other people with AIDS, knowledge of how and what to eat — the African potato and wild spinach which grow practically wild are fabulous immune boosters, people need to know this, because even the poorest can access these.

'Rape is not just about the event on the day it happens, it is not just about the medication we take for the month that follows. Rape is about the rest of our lives after, how we and others help us to cope and manage our lives — that is the most important gift you can give to your survivors. It is easy to become fixated on the trauma and drama of the day of the rape, and the immediate time thereafter, but our needs after rape are far greater. The way we deal with each woman after rape impacts on entire communities, because afterward we send out (hopefully) a more informed, empowered person into the community who will, in very many instances, help others.

'In South Africa, rape is about AIDS, we cannot mention one sentence about rape without talking about AIDS; some of those women who are HIV-positive on the day they are raped, will become some of the greatest communicators or fieldworkers helping others with AIDS or rape if you find ways to give them the opportunity.'

2000 American College of Physicians. *Annals of Internal Medicine* 2000; 133: 31-34.

CDC Public Health Service guidelines for the management of health care worker exposure to HIV and recommendations for post-exposure prophylaxis. *MMWR* 1998; 47: 1B33.

Offering HIV Prophylaxis Following Sexual Assault: Recommendations for the State of California. Prepared by: Urban Community Health of the San Francisco Department of Public Health and The California HIV PEP after Sexual Assault Task Force in conjunction with The California State Office of AIDS; Josh R Bamberger and others, October 2000.

Management of possible sexual, injecting drug use or other non-occupational exposure to HIV, including considerations related to antiretroviral therapy. *MMWR* 1998; 47: No. RR-17.

