MOTHER TO CHILD TRANSMISSION (MTCT): QUESTIONS AND ANSWERS

AIDS LAW UNIT, LEGAL ASSISTANCE CENTRE

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by

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INTRODUCTION

This is the second in a series of articles prepared by Delme Cupido, Project Lawyer at the AIDS Law Unit of the Legal Assistance Centre as part of a campaign initiated by the ALU to raise awareness and understanding about treatment for HIV/AIDS

BACKGROUND

According to the latest UNAIDS "Report on the global HIV/AIDS epidemic", of the estimated 200 million women worldwide who become pregnant each year, approximately 2,5 million are HIV positive.[1] From the beginning of the AIDS pandemic until the year 2000 about 5 million infants have been born with HIV, and 90 percent of those births have been in Africa. [2]

These frightening statistics point to the fact that we are faced with the challenge of not only preventing the infection of women who are not yet infected, but also of preventing the transmission of the virus from infected mothers to their babies, and in particular, as the disproportionate transmission rates in Africa show, we are faced with the challenge of doing so in resource poor settings.

WHAT IS MEANT BY MTCT?

MTCT is a commonly used acronym for **M**other **T**o **C**hild **T**ransmission of the Human Immunodeficiency Virus (HIV).

HIV is a progressive disease of the immune system that, if left untreated, depletes the immune system and may be fatal because it weakens the body's ability to fight of opportunistic infections such as tuberculosis, pneumonia and meningitis.

HIV is transmitted in a few basic ways: through unprotected sexual intercourse, from infected blood and blood products, from a pregnant woman to her baby *in utero*, during delivery, and from infected breastmilk. Infection of an infant by an HIV positive mother around the time of birth is what is commonly referred to as MTCT, or vertical transmission. MTCT also refers to transmission from a mother to a child during breastfeeding.

Without effective medical intervention, there is a 25 to 35 percent risk of a child born to an HIV positive mother becoming infected during pregnancy, labour, delivery or after childbirth during breastfeeding.[3] Where there has been no breastfeeding, approximately two thirds of infections occur during delivery, and

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[1] UNAIDS *Report on the global HIV/AIDS epidemic 2002, 128*

[2] Jonathan Berger 'Taking Responsibilty Seriously: The Role of the State in Preventing Transmission of HIV from Mother To Child', see also UNAIDS Technical Update "Mother to Child transmission of HIV' (September 2000)

[3] UNAIDS (note 2 above)

the majority of the remaining infections occur during the last two months of pregnancy. Breastfeeding, in populations where it is the norm, accounts for more than a third of all transmissions.

CAN THE RISK OF MTCT BE REDUCED?

Yes. There are now relatively inexpensive and effective antiretroviral drugs in existence that have the potential of reducing the risk of MTCT by up to 50 %.[4] These drugs are easily administered, and they can feasibly be introduced in resource poor setting such as Namibia.

Clinical trials in Thailand and Africa, using drugs such as zidovudine (more commonly known as AZT) and nevirapine have yielded very encouraging results, particularly where safe alternatives to breastfeeding were offered to the women who participated in the trials. Clinical trials carried out in South Africa, in which short courses of nevirapine alone were used, yielded similarly encouraging results, and were also shown to substantially reduce the cost of the drugs as well as the complexity of administering the drugs.

HOW EFFECTIVE ARE THESE DRUGS?

There are different drugs that can be used to prevent MTCT, but the studies that have been done so far have shown very good results.

A study done in Thailand, using AZT, demonstrated a reduction of MTCT in non-breastfeeding populations of 50%. Encouraged by these results, the Thai government introduced a countrywide MTCT prevention programme in 1999, and by 2001 they had halved the HIV infections in newborn children.

Studies in Côte d'Ivoire and Burkina Faso using AZT, showed a 38 % reduction in vertical transmission in breastfeeding populations. Closer to home, in the Khayalitsha township in the Western Cape, a reduction in vertical transmissions of approximately 50%, using AZT, was recorded.

Studies conducted in the USA, Puerto Rico and Uganda to test the effectiveness and safety of Nevirapine have shown the drug to be even more effective in preventing MTCT.

In South Africa, 1306 women participated in a study comparing AZT and Nevirapine. The results of the study showed that MTCT could be reduced by more than 50% using just one 200 mg dose for the mother during labour followed by a dose for the mother and the infant 24-48 hours after delivery.[5]

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[4] UNAIDSR*eport on the Global HIV/AIDS epidemic 2002*

[5] The results from the Bangkok Perinatal AZT Study, the recorded data from the Khayalitsha clinics, the results of the ACTG 50 study in Puerto Rico and the USA, the results from the HIVNET 006 trial as well

Nevirapine has been placed on the World Health Organisation's Essential Drug List for the prevention of MTCT.

HOW DO THE DRUGS WORK?

Anti-retroviral drugs (ARV's) are a class of drugs that suppress HIV viral activity and replication. If they are properly administered they reduce the volume of HIV to such an extent that the virus will be undetectable in a person's blood. They therefore prevent and delay the destruction of a person's immune system by HIV.

AZT and Nevirapine are such anti-retroviral drugs.

Nevirapine, the most effective, and safest, of the two, is a fast-acting drug that is quickly absorbed into the body and passes easily through the placenta. It remains active in the body of the mother and the infant for a long enough time to enable it to limit HIV infection.

A further advantage of Nevirapine is that it is quite simple to administer to a patient. In the Ugandan study, mentioned above, the treatment consisted of a 200mg tablet, given to the mother during labour, and a single dose of syrup given to the infant within 72 hours of birth. The researchers in that study cited as advantages of Nevirapine, it's simplicity, low cost and potential for widespread use because of the ease with which the drug can be administered.

ARE THE DRUGS SAFE?

In deciding whether a particular medicine is safe or not, it is not useful to list possible side effects. Practically every medicine has possible adverse side effects. What is important is the likelihood and severity of the side effects being experienced, as well as, importantly, the seriousness of the condition for which the medicine is prescribed.

With regard to Nevirapine, in particular, there have been no significant health risks observed when it is used as a "once-off" dose to prevent MTCT.

The WHO has also unequivocally recommended the use Nevirapine as being a safe way of preventing MTCT, and it has stated that the benefit of reducing MTCT greatly outweighs any potential adverse effects of exposure to the drug.

WHAT ABOUT "DRUG RESISTANCE"?

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as the HIVNET 012 trial and the South African Intrapartum Nevirapine Trial (SAINT) are described in the affidavits of Professor Robin Wood and Siphokazi Mthathi in the *Treatment Action Campaign and Others v Minister of Health and Others* matter heard in the High Court of South Africa.

One of the "concerns" of those who oppose the use of drugs like Nevirapine is that patients who take them for a prolonged period may develop resistance to the drugs. They claim that such an effect would be "devastating" and would have "potentially catastrophic consequences" for public health. These fears, however, are greatly exaggerated.

The WHO Technical Consultation, which looked at this problem, found that persistant Nevirapine resistant strains of HIV were not found in any of the women who received the drug as part of a MTCT programme, and concluded, further, that "the benefit of decreasing mother to child HIV transmission with [Nevirapine] greatly outweighs concerns related to development of drug resistance".

There is a much greater public health danger in denying pregnant women and their infants Nevirapine, than in providing the drugs to those who need them.

WHAT ARE THE PROBLEMS RELATED TO MTCT AND BREASTFEEDING?

As already stated, in the absence of any effective interventions, approximately one third of mother to child transmissions occur through breastfeeding. It is clear, therefore, that breastfeeding has the potential to undermine the effects of anti-retroviral treatment.

The WHO, regarded as the authoritative international organisation on public health issues has developed recommendations in this regard. According to the WHO/UNAIDS Technical Consultation, breastfeeding by HIV-infected mothers should be avoided when alternative feeding is acceptable to the woman, when it is feasible, affordable, sustainable and safe. At all times the mother should be counseled and informed of her options.[6]

Most countries with a national policy on HIV follow the UN Guidelines, and the best policies are those in which mothers are offered choices. Studies have shown that that most women (up to 70%) choose replacement feeding when counseled on the various infant feeding options.[7]

In many low-income countries, however, replacement feeding is not always a viable option, often because there are no safe, acceptable or feasible alternatives to breastfeeding. Even where breastmilk substitutes are available, there are still obstacles present in the shape of a lack of sanitary conditions, clarity on appropriate use and stigma from family or community (due to the association of non-breastfeeding with HIV).

It is recommended, therefore, that counselling of HIV positive mothers should include information about the risks and benefits of the different infant feeding

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[6] UNAIDS/WHO Report "New Data on the Prevention of Mother To Child Transmission of HIV and their Policy Implications", January 2001

[7] UNAIDSR*eport on the Global HIV/AIDS epidemic 2002. 130*

options, that follow-up support be provided to help women implement their choices as safely as possible.

Because of the many benefits of breastfeeding, and the fact that the majority of infants are not born to HIV positive mothers however, breastfeeding is still the best option for mothers who are not HIV positive, or even for those who do not know what their status is. Exclusive breastfeeding, in these cases, is recommended during the first months of the infant's life, and should then be discontinued as soon as it is feasible to do so.[8]

ARE MTCT DRUGS, LIKE NEVIRAPINE, AVAILABLE IN NAMIBIA?

Yes. There are two government run programmes that supply Nevirapine to pregnant mothers who are HIV positive. These are based in Windhoek, at the Katutura Hospital's antenatal clinic, and the Oshakati Hospital's antenatal clinic. These two programmes make use of an offer by the manufacturer of Nevirapine , Boehringer Ingelheim, in terms of which developing countries have been offered the drug for free for a period of 5 years. For more information on these programmes you may contact the Katutura antenatal clinic at 061-2034150- or 061-2034149, or the Oshakati Hospital at 065-255025.

Nevirapine is also available at pharmacies for approximately N$ 620.00 for 60 tablets.

Comparatively speaking, Nevirapine is cheap enough that it would be quite feasible to distribute the drug to all public health centers within the near future

ARE DRUGS THE ONLY WAY OF PREVENTING MTCT?

No. Preventing MTCT requires a minimum 'package' of care which includes a number of strategies: (1) primary prevention of HIV among prospective parents; (2) prevention of unwanted pregnancies among HIV positive women; (3) prevention of transmission of HIV from mother to child. It is toward this integrated approach that we should direct our efforts if we are to be successful in ensuring a healthy future for our children and our country.

For further information, please contact the AIDS Law Unit, Legal Assistance Centre at:

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Ibid.130