

## VII. ANTIRETROVIRAL THERAPY IN PREGNANT WOMEN AND PREVENTION OF MOTHER-TO-CHILD TRANSMISSION (PMTCT) OF HIV

### INTRODUCTION AND BACKGROUND

Mother-to-child transmission (MTCT) of HIV can occur during pregnancy, during delivery, or postpartum via breastfeeding. Without treatment, MTCT occurs in 15% to 30% of pregnancies in non-breastfeeding HIV-infected women. In breastfeeding populations, the rate is as high as 30% to 45%.

Several clinical trials have clearly established that interventions exist for the HIV-infected pregnant woman that can dramatically reduce the rate of HIV transmission to her infant. Combination antiretroviral therapy (ART) and avoidance of breastfeeding can reduce this rate to 2% or less. Even where alternatives to breastfeeding are unavailable or unacceptable, appropriate ART can significantly reduce the risk of MTCT. *Elective* caesarean section has also been demonstrated to reduce the risk of vertical transmission *in women receiving limited (e.g., AZT alone) or no ART* during pregnancy. It is controversial as to whether caesarean delivery would offer additional benefit in women who receive combination ART during pregnancy, in whom the risk of transmission is low and therefore any additional benefit of caesarean delivery in preventing transmission may not outweigh the potential risk of complications in the mother. Furthermore, in most resource-limited settings, caesarean section is not commonly available and is often unsafe, reducing the relevance of this intervention in PMTCT efforts.

These guidelines present specific recommendations for PMTCT in various clinical scenarios, followed by a discussion of the evidence from clinical trials that form the basis of these recommendations.

### GENERAL RECOMMENDATIONS REGARDING THE ANTENATAL CARE OF PREGNANT WOMEN WITH HIV INFECTION

Identification of HIV-infected women prior to or during pregnancy is essential in order to properly administer PMTCT and optimal therapy for the infected mother. Voluntary HIV counselling and testing (VCT) is therefore recommended for **all** pregnant women. Strict confidentiality must be maintained at all levels.

All HIV-infected pregnant women should be enrolled into appropriate antenatal clinical care that includes consideration of PMTCT options. The importance of adherence and of maintaining all medical appointments should be emphasised. Where possible, any potential barriers to adherence should be addressed prior to initiation of ART (see [Chapter IV](#) for more details). Standard antenatal investigations should be performed on all HIV-infected pregnant women, including haemoglobin, blood typing, haemoglobin electrophoresis (or sickle test if this is unavailable), syphilis serology, and hepatitis B screening. Counselling on nutrition and the benefits and risks of breastfeeding should be provided, and investigation into the possibility of formula-feeding should begin in the antenatal period.

Mothers who receive ART for PMTCT should be taught how to self-medicate during labour to ensure prompt compliance at the onset of labour, and the ARV(s) that will be taken during labour should be dispensed by thirty-six weeks gestation.

### PMTCT ANTIRETROVIRAL THERAPY RECOMMENDATIONS: SPECIFIC SCENARIOS

*Table 1* summarizes the ART options for various clinical scenarios, which are reviewed in further detail in the text that follows the table. Please refer to [Appendix A](#) for details regarding the exact dosing options for the ARVs described. [Appendix B](#) summarizes the evidence from clinical trials that form the basis of these recommendations. [Appendix C](#) reviews the risks of resistance associated with PMTCT regimens, and details strategies that can be used to manage these risks.