CMScript
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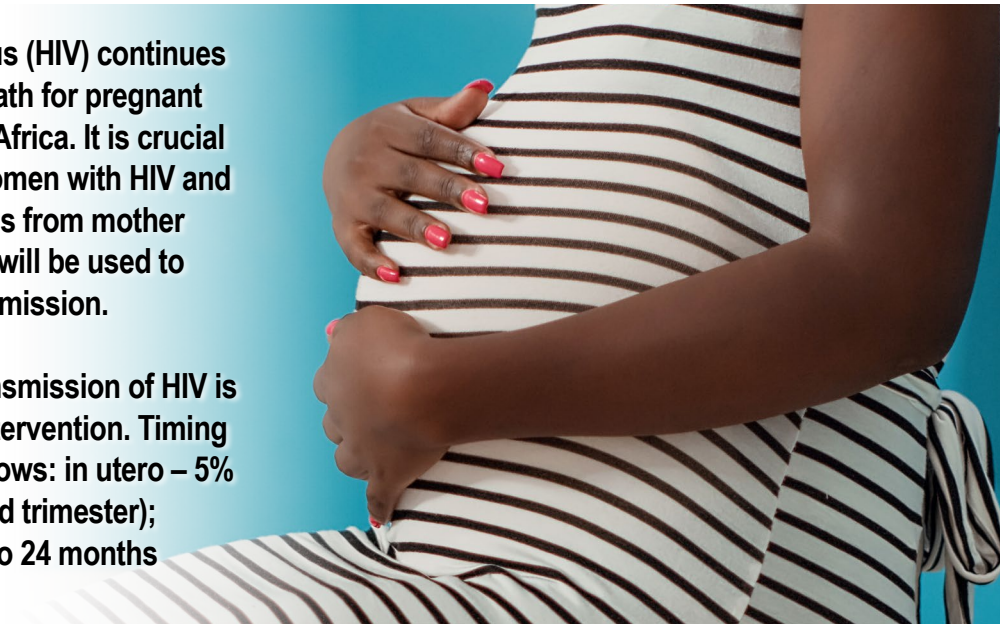
CMS Council for Medical Schemes

Vertical Transmission Prevention

Human immunodeficiency virus (HIV) continues to be a significant cause of death for pregnant women and children in South Africa. It is crucial to take care of the health of women with HIV and prevent the passing of the virus from mother to child. Vertical transmission will be used to describe mother-to-child transmission.

Overall, the risk of vertical transmission of HIV is ~40% in the absence of any intervention. Timing of such transmission is as follows: in utero – 5% (with increasing risk in the third trimester); during delivery – 15–20%; up to 24 months of breastfeeding – 20%.



The most common way young children contract HIV is through vertical transmission. Vertical transmission of HIV refers to the transmission of the virus from an HIV-positive mother to her child during pregnancy, childbirth, or breastfeeding. HIV is a virus that attacks the body's immune system. If HIV is not treated, it can lead to acquired immunodeficiency syndrome (AIDS). According to recent global estimates by the United Nations Programme on HIV/AIDS (UNAIDS), women carry the burden of HIV, and AIDS is still the leading cause of death for women of reproductive age. For every additional week of suppressive antiretroviral treatment (ART) during pregnancy, vertical transmission is reduced by 10%.

Preventing the transmission of HIV to the baby

- **Know your HIV status**

If a woman plans to become pregnant or is already pregnant, it is crucial to get tested for HIV as soon as possible to determine her status. If the test shows that she is HIV-positive, it is important to start HIV treatment promptly. This is beneficial for her health, and the health of her baby, and to prevent transmitting the virus to her partner. Early detection and treatment significantly reduce the risk of transmission, resulting in better outcomes for both the mother and the child.

- **If you are HIV-negative but at risk**

Women planning to become pregnant with an HIV-positive partner have the option of receiving pre-exposure prophylaxis (PrEP), which helps protect both the woman and the baby from contracting HIV. PrEP involves taking medication to prevent contracting HIV, and it is particularly useful during attempts to conceive as well as throughout pregnancy.

PrEP is highly effective, reducing the risk of getting HIV from sex by about 99%. This preventive measure is essential for couples in which one partner is living with HIV to safeguard the health of the woman and prevent transmission of the virus to the baby.

 The Communications Unit would like to thank the Clinical Unit for assisting with this edition of CMScript.

- **If you are HIV positive**

During pregnancy and childbirth, women living with HIV must take HIV medicines known as anti-retroviral therapy (ART) as prescribed. This helps to reduce the amount of HIV in the body, known as viral load, to an extremely low level, a state called viral suppression. Additionally, the baby should receive HIV medicine for 4-6 weeks after birth. When these steps are followed, the risk of transmitting HIV to the baby is reduced to 1% or less.

It is also important for HIV-positive partners to undergo treatment and adhere to it consistently. This comprehensive approach significantly lowers the risk of HIV transmission, promoting the health of both the mother and the baby.

Antenatal Clinic

- **Testing for HIV**

All pregnant women with an unknown or HIV-negative status must undergo counselling and testing for HIV at the first antenatal visit. Couple testing is encouraged to promote prevention, access to HIV care and treatment, and to manage situations in which one partner is HIV-positive and the other partner is HIV-negative. Women who refuse to be tested for HIV must be counselled afterwards and HIV testing must be offered at every subsequent visit. If a pregnant woman initially tests negative for HIV, it is important to repeat the HIV testing during her regular antenatal check-ups. This should happen about every four weeks. Additionally, HIV testing should also be done when the woman is admitted for labour and delivery. This regular testing helps ensure that any potential HIV infection is identified promptly, allowing for appropriate care and measures to prevent transmission to the baby.

- **Treatment for HIV**

All newly diagnosed HIV-positive pregnant women must be started on lifelong ART, regardless of gestation (stage of pregnancy), CD4 count, or HIV clinical stage. ART during pregnancy is of utmost importance to prevent vertical transmission of HIV to the child. The recommended regimen for pregnant women starting or restarting ART is TDF (tenofovir), 3TC (lamivudine), and DTG (dolutegravir), as a fixed dose combination (TLD). Pregnant women already on TLD when they start antenatal care should continue their current regimen. Pregnant women on ART who are not yet on DTG should switch to a DTG-containing regimen urgently. Pregnant women on a second-line regimen (efavirenz-containing ART or AZT, 3TC, and DTG) should switch to TLD at their first antenatal visit. The viral load test result should not delay the switch.

- **Screening for TB and prevention of Syphilis, HBV and other infections**

All pregnant women should be screened for TB at every visit regardless of HIV status and TB preventative treatment should be considered where necessary. If diagnosed with TB and receiving TB treatment during the pregnancy, the newborn may also require treatment to prevent TB. All pregnant women should be screened and tested for syphilis and other sexually transmitted infections (STIs). If a woman initially tests negative for syphilis, additional screenings should be done at scheduled antenatal visits, during labour and delivery, and in the case of an intrauterine death diagnosis.

Women living with HIV will automatically be treated for HBV (hepatitis B virus) when they start routine first-line ART containing TDF (tenofovir) and 3TC/FTC (lamivudine/emtricitabine).

Labour and delivery

Women on ART continue to take their medication throughout pregnancy and labour and can give birth naturally. The risk of vertical transmission is increased by prolonged labour and bleeding, instrument-assisted delivery of the baby, episiotomy (involving blood-to-blood contact), and premature birth, particularly in patients who are not on ARVs and have a high viral load. Early rupture of membranes may expose the baby to cervical secretions and blood if the membranes have ruptured for more than 4 hours without delivery in a woman who is not on ARVs.

- **Testing for HIV**

All women presenting in the labour ward with an unknown HIV status, including born-before-arrivals [BBAs] should be counselled and tested for HIV. The baby should be treated as high-risk HIV-exposed until the mother's HIV status can be confirmed.

- **Treatment**

Pregnant women already taking ART should continue the ART regimen that they were following during the pregnancy. For women who were not on ART, a single fixed-dose combination tablet of TDF, 3TC, and DTG (TLD) and nevirapine (NVP) should be administered immediately upon admission.

A single dose of NVP should be given to the baby as soon as possible after birth, but within 72 hours of delivery.

- **Viral load management**

The risk of vertical transmission is low with a viral load of less than 50c/ml and the risk is high if the viral load is more than 50c/ml. All pregnant women must have a viral load test done at the time of delivery so that the management of the mother and baby can be adjusted accordingly.

- **Screening for TB**

All women entering the labour ward should be screened for TB. If a woman living with HIV is found to be eligible, TB preventive treatment should begin before she is discharged. It is important to identify and address tuberculosis in pregnant women, especially those living with HIV, to prevent the disease from developing or progressing.

- **Care of the HIV-exposed infant at delivery**

All infants born to HIV-positive mothers should have a birth HIV-PCR (Polymerase Chain Reaction) test to determine whether they were exposed to HIV during pregnancy. The infant should receive dual post-exposure prophylaxis with Nevirapine (NVP) and Zidovudine (AZT) until the viral load at delivery is determined.

Postnatal care

- **Testing for HIV**

HIV-negative mothers should be retested at specific intervals:

- 10-week visit (around three months postpartum)
- Six-month visit
- Every three months while breastfeeding

If no longer breastfeeding, mothers should receive an HIV test at least every year.

- **Treatment**

Current estimates place ART continuation rates at approximately 63% at 18 months postpartum, highlighting the need for improved postnatal retention in care to ensure success in VTP interventions. HIV viral load suppression in the mother is essential to reduce the risk of transmitting HIV to the baby through breastfeeding. Women on ART should continue their treatment as normal.

- **Care of the HIV-exposed infant after birth**

All HIV-exposed infants who previously tested negative should be retested at 10 weeks and 6 months. This additional testing is done to monitor and confirm the HIV status of infants born to HIV-positive mothers, especially those who initially tested negative. All infants should be tested for HIV at the age of 18 months, using a rapid test. This applies to all infants, regardless of HIV status, except for those who have previously tested positive and are receiving ART.

What is covered as PMB level of care?

The prevention of vertical transmission is categorised as a Prescribed Minimum Benefit (PMB) under the Diagnostic Treatment Pair (DTP) code 168S, specifically focusing on HIV infection. This PMB code encompasses various essential services related to HIV management and prevention. The treatments specified under this code include:

- HIV voluntary counselling and testing.
- Co-trimoxazole as preventative therapy.
- Screening and preventative therapy for TB
- Diagnosis and treatment of sexually transmitted infections.
- Pain management in palliative care.
- Treatment of opportunistic infections.
- Prevention of vertical transmission of HIV.
- Post-exposure prophylaxis following occupational exposure or sexual assault.
- Medical management and medication, including the provision of anti-retroviral therapy (ART).
- Ongoing monitoring for medicine effectiveness and safety, following national guidelines applicable in the public sector.

Medical schemes are obligated to fund the diagnosis, treatment, and care of HIV, aligning with the latest National Guideline for the Prevention of Vertical Transmission. This ensures comprehensive and accessible healthcare services for individuals at risk of or living with HIV, particularly focusing on preventing transmission from mothers to their children.

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