MODULE 4

Specific PMTCT Interventions

Module 4: Objectives

- Name specific interventions for prevention of mother-to-child transmission (PMTCT)
- List locally available and recommended antiretroviral (ARV) regimens
- Discuss antenatal management of women infected with HIV
- Describe the management of labour and delivery in women infected with HIV

Module 4: Objectives

- Discuss postpartum care of women infected with HIV
- Describe the obstetric management of women whose HIV status is unknown
- Explain immediate care of babies born to mothers who are HIV-infected
- Discuss immediate care of babies born to mothers whose HIV status is unknown

Specific PMTCT Interventions

Section 1

Antiretroviral Treatment and Prophylaxis for the Prevention of MTCT

Antiretroviral (ARV) Treatment and Prophylaxis

- *ARV Treatment*

  Long-term use of antiretroviral drugs to treat maternal HIV/AIDS and prevent PMTCT

- *ARV Prophylaxis*

  Short-term use of antiretroviral drugs to reduce HIV transmission from mother to infant

Antiretroviral (ARV) Treatment

- Reduces viral replication and viral load.
- Treats maternal infection
- Protects the HIV-exposed infant
- Improves overall health of mother
- Requires ongoing care and monitoring

Principles of ARV use

- Strict adherence critical but a challenge in pregnancy
- ARVs have side effects that need clinical and lab monitoring
- Beware of drug interactions
- Resistance may develop if adherence is not excellent or if drug interactions affect drug levels, resistance may occur
    - Resistance may be spread to baby and to partner

With excellent adherence and monitoring, risks of ARV are minimised and benefits are maximised

Co-Infection with Tuberculosis (TB)

Women infected with HIV can receive both antiretroviral and TB treatment at the same time with

- **Careful drug selection**
- **Clinical management**

ARV Prophylaxis for PMTCT

In accordance with the Nigerian National PMTCT Guidelines, recommended ARV is based on various clinical settings

ARV Prophylaxis for PMTCT

Clinical setting I

Pregnant woman who is HAART eligible but not currently on ART

- **The preferred regimen is ZDV + 3TC + NVP beginning in the second trimester if CD4<250 for either treatment or prophylaxis**
  - **If CD4>250:**
    - **Substitute a PI for NVP if available OR**
    - **Substitute EFV for NVP (3rd trimester only) OR**
    - **Monitor carefully for hepatoxicity**

See Appendix 4-A for details

ARV Prophylaxis for PMTCT

Clinical setting II

Pregnant woman not eligible for HAART for her own disease

- **Option 1** *(facilities with HAART expertise)*: **Initiate HAART per Clinical setting I after the first trimester and discontinue after delivery.**
- **Option 2** (*facilities without HAART expertise*): **ZDV from 28 weeks gestation, continued during labour <u>plus</u> single dose NVP at onset of labour.**

See Appendix 4-A for details

ARV Prophylaxis for PMTCT

Clinical setting III

Mother receiving HAART at the time of the current pregnancy

- **Continue with the current HAART regimen.**
- **ZDV should be a component of the regimen whenever possible.**
- **EFV is contraindicated in the 1st trimester and should be replaced with NVP.**

See Appendix 4-A for details

ARV Prophylaxis for PMTCT

Clinical setting IV

HIV-Infected Woman Who Presents in Labour

- **Give single dose NVP in labour followed by ZDV + 3TC for 4 days.**

Clinical setting V

HIV-Infected Woman Who Presents AFTER Delivery

- **If mother eligible for HAART for her own disease, follow appropriate guidelines.**

See Appendix 4-A for details

ARV Prophylaxis for PMTCT

Clinical setting VI

HIV-Infected Woman With Active TB

- **Treat the TB first if possible.**
- **Delay HAART until the 3rd trimester.**
- **Replace NVP with EFV (800 mg.)**

See Appendix 4-A for details

ARV Prophylaxis for PMTCT

STOPPING NEVIRAPINE

For ALL Women Stopping NVP or EFV or receiving a single dose of NVP intra-partum:

- **Give or continue ZDV + 3TC for 4 days post-partum to reduce the risk of NVP resistance.**

See Appendix 4-A for details

ARV Prophylaxis for NEWBORN INFANTS

ALL CLINICAL SETTINGS

- **Single dose NVP syrup (2mg./kg.) as soon as possible after birth.**
- **Followed by ZDV syrup (4mg./kg. twice daily) for 6 weeks, then STOP.**

See Appendix 4-A for details

Characteristics of the most common ARVs in PMTCT

- ZDV
  - may cause anaemia but usually resolves once discontinued
- NVP
  - should not be used with rifampin
  - Long half-life
  - Hepatotoxicity and rash are common side effects
- 3TC
  - Increased blood concentrations when taken with TMP-SMX. (Dosing schedules are not affected)
  - Usually well-tolerated

Specific PMTCT Interventions

Section 2

Antenatal Management of Women who are HIV-infected and Women with Unknown HIV Status

Antenatal Management

- Reduces risk of MTCT
- Provides linkage to treatment, care and support services
- Helps women infected with HIV stay healthier longer
- Helps HIV-negative women stay uninfected

Routine Antenatal Care

- Test and counsel for HIV
- Diagnose and treat STIs
- Promote safer sex practises
- Provide information on HIV
- Provide infant-feeding counselling and support

Antenatal Care for Women Infected with HIV

- Includes the basic services recommended for all pregnant women

- Obstetric and medical care should be expanded to address the specific needs of women infected with HIV

- The earlier ARVs are started, the greater the reduction in MTCT

Prevent, Screen and Treat TB and Malaria

- Co-infection with Tuberculosis (TB)
  - **Follow Nigerian guidelines for prevention and treatment**
  - **Any woman with cough of two weeks or more needs to be screened and treated when indicated**
- Malaria
  - **Follow Nigerian guidelines for prevention and treatment**

Preventing and Treating Infections

- Monitor and provide early treatment for
  - Urinary tract infections
  - Recurrent vaginal candidiasis
  - STIs
- Provide prophylaxis for OIs according to the Nigerian National PMTCT Guidelines

Psychosocial and Community Support

Pregnancy – a stressful time – link to:

- PLWHA support organizations
- Community services for support with housing, nutritional needs, spiritual needs
- ARV treatment when indicated and available

Exercise 4.1

Antenatal Care Case Studies

Exercise 4.1

- The purpose of this exercise is to review the national Nigerian policies on ANC and PMTCT
- The discussion focuses on ANC management in the context of HIV/AIDS

Exercise 4.1

- Each case that occurs in real life is as unique as each woman is. Policies are guidelines that need to be adapted to meet the needs on the ground, and provide the best possible care.

Specific PMTCT Interventions

Section 3

Management of Labour and Delivery of Women Infected with HIV and Women with Unknown HIV Status

Goals of Labour and Delivery

- Reduce MTCT risk by providing ARV prophylaxis or treatment
- Minimise exposure of new born to maternal blood and body fluids
- Support safer delivery practices

Reducing MTCT Risk During Labour and Delivery

- Provide ARV as indicated based on the treatment strategy in place.
- Minimise vaginal exams and invasive procedures
- Use partogram to monitor labour progress
- *Avoid*:
  - Premature rupture of membranes
  - Prolonged labour
  - Unnecessary trauma during childbirth

Reducing MTCT Risk During Labour and Delivery

- Minimise risk of postnatal haemorrhage
- Use safe transfusion practices (blood screened for HIV and syphilis, malaria, hepatitis B & C when possible)

Elective Caesarean Section vs. Vaginal Delivery

- Elective caesarean section
  - Consider elective caesarean delivery when safe and feasible
  - Done before the onset of labour or membrane rupture
- Vaginal delivery
  - When ARV prophylaxis or treatment has effectively reduced the viral load

Reducing MTCT Risk in Women with Unknown HIV Status

- Offer rapid HIV testing with right to refuse
- Discuss benefits to knowing HIV status
- If HIV-positive, ARVs can be given for PMTCT and refer for treatment and care
- Describe the testing process
- Rapid antibody test in L&D with consent
- Provide post-test counselling
- If HIV-positive, provide ARV prophylaxis based on Nigerian national guidelines

Exercise 4.2

Labour and Delivery ARV Prophylaxis: Case Studies

Exercise 4.2

The purpose of this exercise is to discuss administering ARV during labour and delivery, based on Nigeria's policies

Specific PMTCT Interventions

Section 4

Immediate Postpartum Care of Women Infected with HIV and Women with Unknown HIV Status

Immediate Postpartum Care of Women with HIV infection

Continuing Care

- Provide gynaecologic care, including pap smears
- Monitor for OIs, provide prophylaxis
- Prevent or treat TB and malaria
- Refer for ARV treatment, care and support

Immediate Postpartum Care of Women with HIV Infection

Newborn Feeding

- Mother chooses and begins feeding option
- Support the choice of feeding option
- Provide training on feeding option
- Observe feeding technique

Immediate Postpartum Care of Women with HIV Infection

Signs & Symptoms (S&S) of Postnatal Infection:

- Instruct on S&S of infection
- Provide information on where and when to seek health care
- Instruct on perineal and breast care
- Instruct on safe disposal of lochia & bloodstained materials

Immediate Postpartum Care

Patient Education

- Information on receiving continued care
- Newborn feeding
- Symptoms of infection
- Perineal and breast care
- Disposal of blood-stained pads
- Family planning

Postpartum Care of Women

Family Planning

- Prevent unintended pregnancies
- Support child spacing
- Promote continued safer sex practices

Women of Unknown HIV Status: Benefits of HIV Testing *after* Delivery

- Initiate ARV prophylaxis for infant if indicated.
- Encourage safer feeding selection option should she test positive.
- Encourage exclusive breastfeeding if she tests negative or refuses to be tested.

Exercise 4.3

Immediate Postpartum Care of Women Who Are HIV-infected: Case Studies

Exercise 4.3

The purpose of this exercise is to review review postpartum management of the woman with HIV infection

Specific PMTCT Interventions

Section 5

Immediate Newborn Care of Infants who are HIV-Exposed and Infants Born to Mothers with Unknown HIV Status

Immediate Newborn Care of HIV-Exposed Infants

DO

- Maintain universal precautions
- Cut cord under cover of light gauze
- Determine mother's feeding choice
- Administer Vitamin K
- Use tetracycline or silver nitrate eye ointment (within 1 hour of birth)
- Administer BCG as per policies for TB prevention

Immediate Neonatal Care of Infant

DO *NOT*

- Suction unless meconium-stained liquid is present
- Use mouth-operated suction
- Use mechanical suction at ***greater*** than 100 mm Hg pressure

ARV Prophylaxis for the Infant who is HIV-Exposed

All babies born to HIV-seropositive mothers are exposed to infection and must receive post-exposure prophylaxis as follows:

- Single dose NVP – as soon as possible after birth, plus ZDV for 6 weeks

Alternative (less effective):

- Single dose NVP – as soon as possible after birth, plus ZDV for 1 week

Infants Born to Mothers of Unknown HIV Status

- Minimise exposure to maternal blood
- Offer the mother rapid testing
  - Give NVP within 72 hours + one week of ZDV if mother is positive or results unknown

Follow-up Care of HIV-Exposed Infants

- Routine assessment for signs/symptoms of HIV (persistent diarrhoea, failure to thrive)
- According to Nigerian guidelines
  - **HIV testing**
  - **PCP prophylaxis (starting at 6 weeks)**
  - **Prevention and treatment of TB or malaria**

Exercise 4.4

Immediate Newborn Care of Infants Who Are HIV-exposed: Case Studies

Exercise 4.4

The purpose of this exercise is to review ARV prophylaxis and the care of HIV-exposed newborns.

Module 4: Key Points

- Integrating PMTCT services into the essential package of ANC services promotes improved care for all pregnant women and provides the best opportunity for a successful PMTCT programme
- Specific interventions to reduce MTCT include ARV treatment and prophylaxis, safer delivery procedures, and counselling and support for safe infant feeding

Module 4: Key Points

- Using antiretroviral treatment and prophylaxis reduces the risk of MTCT. Longer-course combination regimens are effective, but short-course prophylaxis regimens may be more feasible in some resource-constrained settings
- The prevention and treatment of TB and malaria are part of comprehensive care for mothers infected with HIV and their infants

Module 4: Key Points

- Safer delivery procedures include avoiding unnecessary invasive obstetrical procedures and offering the option of elective caesarean section when safe and feasible
- Infant-feeding options to minimise the risk of MTCT require support and guidance throughout ANC, labour and delivery, and postpartum