Improving Retention, Adherence, and Psychosocial Support within PMTCT Services:

Implementation Workshop for Health Workers

ICAP International Center for AIDS Care and Treatment Programs

All slide illustrations by Petra Röhr-Rouendaal, *2010*

Module 1: Introduction and PMTCT Update

Module 1: Learning Objectives

- Know more about workshop participants and trainers
- Understand the workshop goal, objectives, and agenda
- Discuss changes and updates to the national PMTCT and infant feeding guidelines

Workshop Learning Objectives - 1

By the end of this workshop, participants will be able to:

1. Understand the changes to the national PMTCT guidelines and how they should be applied in clinical settings
2. Define the PMTCT spectrum of care
3. Define psychosocial and adherence support in the context of PMTCT services
4. Understand the importance of psychosocial and adherence support to meet the needs of women and families enrolled in PMTCT
5. Identify strategies to improve psychosocial and adherence support within PMTCT programs
6. Use counseling cue cards to conduct ongoing, supportive counseling for pregnant and postpartum women

Workshop Learning Objectives - 2

7. Use checklists to improve pre- and post-test counseling in PMTCT settings
8. Conduct a psychosocial assessment and document key points and next steps, as well as make referrals
9. Use guides to conduct adherence preparation and support sessions with clients and to provide ongoing adherence assessment and follow-up
10. Develop and use an appointment system
11. Use a patient education video to reinforce key PMTCT messages
12. Use improved communication and counseling skills with clients

Workshop Agenda

DAY	SUGGESTED TIME	SUGGESTED ACTIVITY
DAY 1	**12:30-13:00**	LUNCH and WORKSHOP OPENING
	13:00-14:30	Module 1: Introduction and PMTCT Update
	14:30-17:10	Module 2: Retention, Adherence, and Psychosocial Support in PMTCT Programs
DAY 2	**12:30-13:00**	LUNCH
	13:00-15:30	Module 3: Using the PMTCT Counseling Cue Cards
	15:30-17:00	Module 4: Using the PMTCT Checklists, Guides, Forms, and Video
DAY 3	**12:30-13:00**	LUNCH
	13:00-14:15	Module 4: Using the PMTCT Checklists, Guides, Forms, and Video (continued)
	14:15-16:45	Module 5: Monitoring Adherence to PMTCT and Planning the Way Forward
	16:45-17:00	WORKSHOP CLOSING
DAY 4 (OPTIONAL)	**12:30-13:00**	LUNCH
	13:00-16:30	Supplemental Module 6 (optional): Review of Counseling and Communication Skills

PMTCT Update

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Newly Released WHO Guidelines for HIV Prevention, Care & Treatment, 2009 (and adapted at country level)

- **Antiretroviral drugs for treating pregnant women and preventing HIV infection in infants ('PMTCT guidelines')**
- Infant feeding in the context of HIV
- Antiretroviral therapy for HIV infection in adults and adolescents
- Antiretroviral therapy for HIV infection in infants and children

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Principle Objectives of the PMTCT Guidelines

- Maximally reduce the risk of MTCT
- Improve maternal and infant survival
- Maximize effectiveness of PMTCT, minimize side effects for mothers and infants, and preserve future HIV care and treatment options

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Rationale Underlying PMTCT Guidelines Changes

- Recognizes the importance of addressing maternal health status and ensuring ART for women eligible for treatment
- Extends the duration of prophylaxis throughout most of the period of exposure
- Emphasizes the importance of using multidrug regimens
- Recommends a single approach for ART prophylaxis (Option A or Option B) on national or sub-national level

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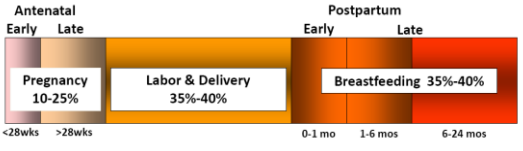
Two Key Approaches for PMTCT



Maternal lifelong ART

Lifelong ART for HIV-infected women in need of treatment for their own health*, which is also safe and effective in reducing MTCT
Highlights importance of CD4 testing to determine ART eligibility

Maternal/Infant ART prophylaxis

ARV prophylaxis to prevent HIV transmission from mother to child during pregnancy, delivery and breastfeeding for HIV-infected women not in need of treatment

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Key WHO Recommendations

1. **Lifelong Antiretroviral Treatment for Pregnant Women who Qualify:**

   Earlier ART initiation to improve maternal health and infant outcomes

2. **Maternal-Infant Antiretroviral Prophylaxis:**

   Earlier initiation and longer provision of ARV prophylaxis for HIV-infected pregnant women who do not need ART for their own health, with continued (maternal/infant) prophylaxis during breastfeeding

3. **Infant Feeding:**

   Improve HIV-free survival of HIV-exposed Infants (HEI) by **supporting safer breastfeeding practices** in the presence of ARVs (elimination of AFASS criteria)

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I. Maternal Lifelong Antiretroviral Treatment

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Immunologic and Clinical Criteria for Lifelong ART

WHO clinical stage	CD4 <350 cells/mm³	CD4 >350 cells/mm³
Stage I	ART	*ARV prophylaxis*
Stage 2	ART	*ARV prophylaxis*
Stage 3	ART	ART
Stage 4	ART	ART

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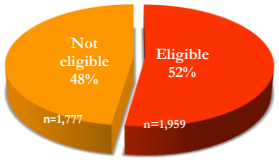
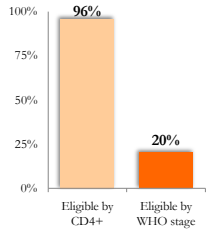
WHO 2009

CD4 Testing Critical to Identify Pregnant Women Eligible for ART

% pregnant women eligible for ART, n=3,736, The MTCT-Plus Initiative, 2003-2008



Eligibility by CD4+ and WHO stage (n=1,959)



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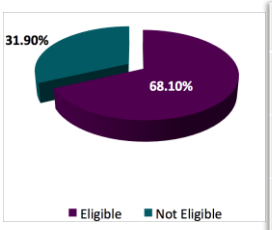
Dugan , Carter, JAIDS 2010

Women Eligible for ART Are at High Risk for MTCT and Mortality



Pregnant women in Zambia, 2002, eligible for ART by current WHO criteria (n=1,025)

	Eligible for ART	Not eligible for ART
Proportion of MTCT by 6 weeks	87.5%	12.5%
Proportion of MTCT after 6 weeks	87.5%	12.5%
Maternal mortality 24 months after delivery	92%	8%

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Kuhn, AIDS 2010

Recommended Regimens for ART Eligible Pregnant Women & Their Infants

MATERNAL TREATMENT

Start ART *as soon as possible* for women with CD4 < 350 or WHO Clinical Stage 3 or 4
Initiate ART at any gestational age

REGIMENS

Preferred Regimen	Alternative Regimen
AZT + 3TC + NVP	TDF + 3TC(FTC) + NVP
AZT + 3TC + EFV*	TDF + 3TC(FTC) + EFV*

*EFV to be avoided in 1st trimester

INFANT ARV Prophylaxis

Infants (breast feeding and formula feeding): Once daily NVP or twice daily AZT from birth until 4 - 6 weeks of age

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WHO 2009

Regimen Choice for ART Eligible Women (adapt to national guidelines)

- Recommended regimens parallel WHO adult ART guidelines
  - AZT + 3TC backbone 'preferred' for PMTCT
    - Demonstrated safety and efficacy of AZT + 3TC
  - EFV more acceptable for PMTCT
    - Initiate **after** first trimester
    - Effective contraception required postpartum
  - Each regimen carries drug specific risks and toxicities
    - Overall low risk of severe toxicities
      - Neural tube defects associated with EFV during first trimester (very rare event)
      - Hepatotoxicity/hypersensitivity associated with NVP particularly in women with liver dysfunction/hepatitis
      - TDF contraindicated with renal dysfunction
    - Balance in favor of protecting maternal health and preventing infant infections

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Considerations for Choice of Infant Prophylaxis Regimen When Eligible Mother Receives ART

AZT

- Twice daily
- Toxicity rare: anemia, neutropenia
- Recommended in 2006 guidelines and currently in use in the field
- Resistance mutations rare
- Not effective for prevention of BF transmission

NVP

- Once daily
- Toxicity rare: rash
- Efficacious for prevention of BF transmission
  - May be especially useful if maternal ART is initiated late
- High rate of NNRTI resistance in babies who become infected
- Not studied in context of maternal ART during BF
  - Risk of toxicity if mom and baby both on NVP

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II. Maternal-Infant Antiretroviral Prophylaxis

Option A -or- Option B

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Immunologic and Clinical Criteria for PMTCT Antiretroviral Prophylaxis (Option A or Option B)

WHO clinical stage	CD4 <350 cells/mm³	CD4 >350 cells/mm³
Stage I	ART	*ARV prophylaxis*
Stage 2	ART	*ARV prophylaxis*
Stage 3	ART	ART
Stage 4	ART	ART

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WHO 2009

Option A

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Prophylaxis Regimens for Pregnant Women & Their Infants - Option A

MATERNAL ANTIRETROVIRAL PROPHYLAXIS

Initiate as early as 14 weeks gestation through delivery

REGIMENS

Antepartum	Intrapartum	Postpartum
Daily AZT from 14wks	sd-NVP, AZT + 3TC*	AZT + 3TC for 7 days*

*sd-NVP and AZT+3TC intra- and post-partum can be omitted if mother receives > 4 wks AZT during pregnancy

INFANT ANTIRETROVIRAL PROPHYLAXIS

Breastfeeding Infant: Once daily NVP from birth through duration of breastfeeding until one week after last exposure to breast milk**

Non-breastfeeding Infant: Once daily NVP or sd-NVP + twice daily AZT from birth to 4-6 weeks of age

* **Infant feeding guidelines recommend breast feeding up to 12 months of age

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WHO 2009

Option B

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Prophylaxis Regimens for Pregnant Women & Their Infants - Option B

MATERNAL ANTIRETROVIRAL PROPHYLAXIS

- Initiate as early as 14 weeks gestation through delivery
- If breast feeding , continue until 1 week after weaning

RECOMMENDED PROPHYLAXIS REGIMENS

AZT + 3TC + LPV/r
AZT + 3TC + ABC
AZT + 3TC + EFV
TDF + ETC (FTC) + EFV

INFANT ANTIRETROVIRAL PROPHYLAXIS

Breastfeeding and Non-breastfeeding Infants: Daily NVP or twice daily AZT from birth until 4-6 weeks of age

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WHO 2009

III. Infant Feeding

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Infant Feeding Recommendations, 2010

ONE NATIONAL infant feeding strategy

BREASTFEEDING IN THE PRESENCE OF ARV INTERVENTIONS

- Exclusive breastfeeding for the first 6 months of life
- Introduce complementary foods at 6 months
- Continued breastfeeding up to 12 months of life (Breastfeeding should then only stop once a nutritionally adequate and safe diet, without breastmilk, can be provided

OR

AVOID ALL BREASTFEEDING

- Formula provision at national level – NO AFASS Assessment

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PMTCT Update Summary

- **Earlier diagnosis and treatment of HIV with ART**
  CD4 ≤ 350cells/mm^3 , Stage III, IV*
- **Prophylaxis started earlier and longer duration**
  Regimens initiated at 14 weeks gestation and continued throughout duration of breastfeeding
- **Safer infant feeding practices to maximize HIV-free survival**
  Exclusive breastfeeding for 6 months, with breastfeeding continued through 12 months in the presence of maternal/infant prophylaxis

*critical importance of CD4 testing during pregnancy to determine ART eligibility

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Implications for Adherence Support?

- PMTCT does not end at delivery – need to support adherence throughout the entire duration of PMTCT care and interventions
- Higher CD4 (≤350 cells/mm^3) means that there will be MORE pregnant women who need to initiate ART and who will need ongoing adherence support
- Earlier initiation of prophylaxis for women not eligible for ART means greater need for adherence support during pregnancy
- Extended prophylaxis during breastfeeding means greater need for adherence support postpartum
- Mothers need compassionate, consistent and ongoing support to adhere to safe infant feeding practices

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Any Questions?

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