Poll Question: What type of organization do you work for?
Housekeeping

Have questions during the webinar?
- Type them in the chat box!

Did you have a chance to complete the HPAT?
- If not, please do so via link in chat box!
- If yes, great! Sit back and enjoy the webinar!

Please be sure to complete the evaluation at the end of the webinar! We love all feedback.
SFDPH CBA Expertise

HIV Testing

- Community-based testing
- Home testing
- Novel testing technologies
- Linkage/Partner Services
- Internet Partner Services

Prevention for at-risk negative persons

- PrEP/PEP
- Personalized Cognitive Counseling

Policy

- Data to support HIV care continuum
- Harm reduction
- Jurisdictional Planning
- Working with cross-sector partners
Ready to find out more?

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Infant Feeding and HIV: The Pediatricians Weigh In (Part II of II)

Dr. Tess Barton; Dr. Jason Brophy; Dr. Judy Levison; Dr. Mona Loutfy; Ms. Thomas; Shannon Weber

Oct. 9, 2015

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Funded by Centers for Disease Control and Prevention
Webinar Agenda

- Overview of infant feeding discussion – Shannon Weber
- Review of the data – Dr. Mona Loutfy
- Case studies from Houston and Ottawa – Dr. Tess Barton, Dr. Judy Levison, Dr. Jason Brophy, and Dr. Mona Loutfy
- Panel Discussion & audience Q&A
Objectives slide

- Describe co-management arrangements for pediatricians and ob/gyns to discuss shared concerns & differences
- Discuss approaches to multidisciplinary care for women living with HIV who are considering breastfeeding
- Identify online resources for provider and patient support.
A Harm Reduction Approach

Breastfeeding and HIV-Infected Women in the Urban Setting

Judy Levi

1Department of Social and Preventive Medicine
2Global Health Program

Key words: Harm reduction; breastfeeding; maternal health

Several hypothetical scenarios concerning breastfeeding women with HIV were presented in a recent editorial [1] . The authors discuss the potential benefits of breastfeeding in the context of maternal HIV infection, emphasizing the need for individualized care and support for women and their families. They highlight the importance of understanding the cultural and social contexts in which breastfeeding decisions are made.

Issues in Applying a Harm Reduction Approach to Breastfeeding in the Context of Maternal HIV

To the Editor—A harm reduction approach to breastfeeding in the context of maternal human immunodeficiency virus (HIV) was a refreshing perspective to consider and we congratulate Levinson et al [1] on this provocative suggestion. Harm reduction as a counseling philosophy is in consonance with the World Health Organization guidelines, as both focus on informed parental decision-making [2] . Choices regarding infant feeding are highly personalized for parents, and we must not negate that these choices remain personal for women with HIV despite the limitations imposed by transmission risks and national guidelines. As members of a working group devoted to discussion using a harm reduction approach [6] ,

There is also an ethical difference between the harm reduction strategies of our group and the concerns raised by Levinson et al [1] . Our group is finalizing a systematic review exploring risk of perinatal HIV transmission through breastfeeding among women who are on ART who are counseled helpfully on the transmission risk of breastfeeding [7] .

672 • CID 2015:60 (15 February) • CORRESPONDENCE
Shared Decision Making

is a collaborative process that allows patients and their providers to make health care decisions together taking into account the best scientific evidence available, as well as the patients values and preferences.
Dr. Vernazza on the Swiss Approach

The Swiss Response to Breastfeeding for Women Living with HIV

by HIV-Online | Aug 6, 2015 | HIV+ Women Featured | 0 comments

Prof. Pietro Vernazza of the Division of Infectious Diseases, Kantonsspital St. Gallen, Switzerland, talks with HIV’s Shannon Weber about breastfeeding for women living with HIV. They weigh the risks and benefits of this, and discuss the soon-to-be-released, unfamilial Swiss recommendations regarding vertical transmission.

Prof. Vernazza says, “We have to balance this (breastfeeding with HIV) very low risk, that seems to be real, with the risk of not breastfeeding.”

Referring to the ethos around what to tell a mother living with HIV about breastfeeding, Prof. Vernazza recommends a shared decision-making process: “This is a situation where you should include the patient in this decision making.” He goes on to talk about reasons a mother might choose to breastfeed, and why she might decide against it.

For more information on breastfeeding for women living with HIV, check out this pamphlet.
Canadian Resources

• Is formula good for my baby?  
  http://www.catie.ca/en/practical-guides/formula-good-my-baby/1; PDF:  
  http://www.catie.ca/sites/default/files/26511.pdf

• Other Canadian resources for HIV in pregnancy:  

• http://librarypdf.catie.ca/PDF/ATI-20000s/26318.pdf
Patient Pamphlets

Woman-centered printables about HIV and infant feeding:

- Bonding with your baby without breastfeeding
- Infant Feeding & Women Living with HIV

http://www.hiveonline.org/for-you/hiv-women/
Why “infant feeding”? 

- Breastfeeding 
- Formula or replacement feeding 
- Mixed feeding 
- Milk banks 
- Flash-heating 
- Wet nurse 
- Pre-masticated food
Factors Influencing Infant Feeding Decisions

- Disclosure of HIV status
- Cultural bias toward breastfeeding
- Desire to bond through breastfeeding
- Health benefits of breast milk
- Cost of formula/disincentives through public benefits programs
Brief overview of the data

Mona Loutfy, MD, MPH
Associate Professor, Department of Medicine
Women’s College Hospital, University of Toronto

Based on
Dr. Judy Levison’s slides from the Webinar on July 9th 2015
Breastfeeding is not recommended for HIV-positive women in the United States (or Canada), including those receiving cART

“*In discussing the avoidance of breastfeeding as the strong, standard recommendation for HIV-infected women in the United States, the Panel notes that women may face social, familial, and personal pressures to breastfeed despite this recommendation and that it is important to begin addressing possible barriers to formula feeding during the antenatal period.”
What is the thinking behind the guidelines?

- Prior to the availability of antiretroviral therapy, the risk of HIV transmission from breastfeeding mother to baby was 16%.

- If formula is available, feasible, affordable, safe, sustainable (AFASS)—such as the U.S. and Canada, then not breastfeeding usually makes sense.

Nduati et al. JAMA 2000; 283(9):1167-1174
Thior et al. JAMA. 2006;296(7):794-805
What are the risks of formula feeding?

- In low resource areas of the world, formula feeding has been associated with higher rates of infant death than death from HIV. 

- **Mixed feeding** (alternating breast and formula feeding) has a higher risk of HIV transmission than exclusive breastfeeding.

What is the HIV transmission rate associated WITH antiretroviral therapy?

What is the evidence?

- Kesho Bora study
- Mma Bana study
- Breastfeeding, Antiretrovirals, and Nutrition (BAN) trial
Kesho Bora study: maternal treatment while breastfeeding

Risk of HIV Transmission

- Triple ARV Therapy (12-month follow-up): 5.4%
- Prophylactic ARVs (1st week of life): 9.5%

Mma Bana study (Botswana): maternal treatment while breastfeeding

- Maternal ARV use among 560 women (zidovudine/lamivudine BID with a) abacavir OR b) lopinavir/ritonavir OR c) nevirapine) during pregnancy, and up to 6 months of breastfeeding was associated with a 1.1% cumulative risk of transmission

- 95% of all women had VL<400

BAN Trial: Infant prophylaxis vs. maternal treatment while breastfeeding cont.

WHO guidelines 2010: ARV-prophylaxis options for HIV-infected pregnant women who do not need ART for their own health

<table>
<thead>
<tr>
<th>Option A: Maternal AZT</th>
<th>Option B: Maternal triple ARV prophylaxis</th>
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<tr>
<td><strong>MOTHER</strong></td>
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<tr>
<td>• Antepartum AZT (from as early as 14 weeks gestation)</td>
<td>Triple ARV from 14 weeks until one week after all exposure to breast milk has ended</td>
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<tr>
<td>• sd-NVP at onset of labour*</td>
<td>• AZT + 3TC + LPV/r</td>
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<tr>
<td>• AZT+3TC during labour and delivery*</td>
<td>• AZT + 3TC + ABC</td>
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<tr>
<td>• AZT+3TC for 7 days postpartum*</td>
<td>• AZT + 3TC + EFV</td>
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<tr>
<td>• AZT + 3TC (or FTC) + EFV</td>
<td><strong>INFANT</strong></td>
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<tr>
<td>* sd-NVP and AZT+3TC can be omitted if mother receives &gt;4 weeks of AZT antepartum</td>
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<td><em>Breastfeeding infant</em></td>
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<td>Daily NVP from birth until one week after all exposure to breast milk has ended</td>
<td>Daily NVP from birth to 6 weeks</td>
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<td><strong>Non-breastfeeding infant</strong></td>
<td><strong>Non-breastfeeding infant</strong></td>
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<tr>
<td>AZT or NVP for 6 weeks</td>
<td>AZT or NVP for 6 weeks</td>
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Main issues that complicate the topic of HIV and Breastfeeding

Controversy 1: Contradicting Guidelines
Controversy 2: In the era of cART, how much of a risk is there?
Controversy 3: Understanding the science
Controversy 4: Psycho-social, stigma, fear issues
Controversy 5: Legal implications
Review of the science

- Detectable HIV RNA in the whey of 80% of untreated HIV infected women
- Women on antiretroviral therapy (ART) can have HIV RNA in their milk occasionally
- Often different viral load between the two breasts
- Affected by mammary gland inflammation

Discuss Psychosocial Considerations, Stigma and Fear

- Infant feeding is an emotionally laden issue for women with HIV that is often underpinned by HIV-related stigma
- If not breastfeeding, women with HIV may feel:
  - A sense of loss, guilt, shame, worry, fear and grief
  - Social and cultural pressures and expectations
  - HIV-related and community stigma

“It makes me feel, um, like I’m not performing my full womanly duties as a mother.”

“In our culture it’s, it’s, you need to [breast]feed your baby if they don’t see it they say you are killing the baby.”

“I’m thinking if I don’t breastfeed, people will know”

Evolution of a counseling program for women with HIV who desire to breastfeed

Judy Levison, MD, MPH
Professor, Department of Obstetrics and Gynecology
Baylor College of Medicine
Houston, Texas
October 9, 2015

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Harris Health System Women’s Program, Houston

- Clientele include African American, Hispanic, Caucasian, Asian (Burma, India) and African (Nigeria, Ethiopia, Congo, Cameroon, Guinea Bissau) women
- 60-70 deliveries per year
- Our African women have been the group most focused on breastfeeding
  - Those who come to the U.S. to deliver and plan to return to their home countries 6 weeks postpartum
  - Those who live and interact within an African community here in Houston
Communication among clinicians
Obstetric/pediatric collaboration

- Ongoing discussions about breastfeeding with Pediatric HIV/Retrovirology have occurred for several years.
- General pediatricians/neonatologists caring for newborns in the hospital in 2015 asked to be included in the discussion.
- For those women returning home soon after delivery, initiating the recommendations of their home country makes sense (exclusive breastfeeding, mother and/or baby stays on ARVs for one week following discontinuation of breastfeeding).
- We decided we need to individualize counseling for the remainder of women.
Basic script for obstetric counseling of women

- Ms. *** expressed a desire to breastfeed for the following reason: ***.
- She was counseled that:
  - In the United States, where formula is safe and affordable, we recommend that women with HIV not breastfeed.
  - Breastfeeding is associated with a risk of transmission of HIV to the newborn.
If she still wants to breastfeed, she is advised to:

• Demonstrate a consistently undetectable viral load prior to delivery
• Attend a consultation with Pediatric Infectious Disease (at a cost of *** if no insurance or Medicaid)
• Exclusively breastfeed, which means no formula or water or juice until the infant is weaned, and pumping/freezing enough breast milk to have in reserve for other caregivers to feed the baby in the mother’s absence and to introduce bottle feeding with breast milk in preparation for weaning
• Continue to take HIV medications as prescribed and maintain an undetectable viral load while breastfeeding
• Give the baby daily antiretroviral prophylaxis until one month after fully weaned
• Come in for monthly viral load testing until the baby is weaned, when she can return to viral loads every three to six months
• Bring baby to Pediatric Infectious Disease for monthly HIV tests while breastfeeding and repeat testing three and six months after weaning
• Come in early if any breast redness, pain, and/or fever that might suggest mastitis
• Wean rapidly from breast milk to formula and/or solids
• Be aware of the availability of lactation consultants
Infant Feeding & HIV: Complex Issues

Presented by:
Dr. Jason Brophy & Dr. Mona Loutfy on behalf of the IHPREG team
Use developed tools !!!

Is Formula Good for My Baby?
Acknowledge:

1. The conflicting guidelines – clarify
2. Discuss what studies conclude to date on risk of transmission
3. Understanding of the science
British HIV Association (BHIVA) and Children’s HIV Association (CHIVA) Position Statement on Infant Feeding in the UK

In the very rare instances where a mother in the UK who is on effective HAART with a repeatedly undetectable viral load chooses to breast feed, BHIVA/CHIVA concur with the advice from EAGA [7] and do not regard this as grounds for automatic referral to child protection teams. Maternal HAART should be carefully monitored and continued until one week after all breastfeeding has ceased. Breastfeeding, except during the weaning period, should be exclusive and all breastfeeding, including the weaning period, should have been completed by the end of 6 months.
Prevention of vertical HIV transmission and management of the HIV-exposed infant in Canada in 2014

Social pressure to breastfeed is common in many communities and failure to do so can be perceived by some to be indicative of HIV infection in the mother. Therefore, women need to be supported and provided with advice as to how to explain the choice to bottle feed without disclosing their HIV status. Counselling on this issue is essential and best initiated before delivery by a health care professional or community support worker experienced in working with HIV-infected pregnant women and mothers. Ongoing support is often required. If an HIV-infected woman is found to be breastfeeding, she and her child should be referred urgently to a pediatric HIV expert. It is important to clarify the mother’s understanding of the risks of HIV transmission via breast milk and to determine the reasons for her choosing to breastfeed. An automatic referral to child protection services is not warranted (8), but may be considered in some instances after consultation with a pediatric HIV specialist.
Criminal Law

- In 2006, a woman in Ontario Canada, plead guilty to the charge of *failure to provide the necessities of life*.
  - She received a 6 month sentence to serve conditionally in the community, followed by 3 years probation.

- The circumstances:
  - during pregnancy she did not take treatments to prevent transmission of HIV to her infant
  - she did not inform the medical staff of her HIV status at birth
  - she breastfed the infant
  - the infant was infected with HIV
Real World Experience

Calgary, Alberta

29-year-old married woman, immigrant from Ethiopia:

- reported consistent adherence to cART
- HIV viral loads measured remained undetectable in pregnancy
- Counseled to exclusively breastfeed and offered free formula
- Regularly attended high risk pregnancy clinic and received postpartum home visits
- Infant HIV testing at birth, 3 & 8 months (negative)
- Testing at 12 months (indeterminate)
- Testing at 13 months (positive)

*O’Bryan et al. CMAJ April 5, 2011 183:690-692;
Case #1

- 36 year-old G5P4 woman from Uganda. First 2 children born in home country, received sdNVP (mom and baby) only, both HIV-negative.
- Migrated to Canada, long-term non-progression with low VL, normal CD4. Refused ART in all pregnancies, agreed only to same treatment as in Africa.
- 3rd child received sdNVP and AZT as mom’s VL very low
Case #1

- 4th child – higher VL at end of pregnancy, baby given triple therapy (AZT/3TC/Kaletra), with child protection worker visiting daily
- Now 5th pregnancy, VL higher (1000-2000 c/mL). Says she will breastfeed her child, only agrees to sdNVP again, very little prenatal care
- Meeting between mom & dad, OB/Adult ID/Peds ID – offer breastfeeding on suppressive ART with close follow up of mom & baby
Case #1

- Mom refuses any treatment, says she will breastfeed and no one can stop her.
- Child apprehended at birth for 6 months, triple therapy (AZT/3TC/NVP), negative HIV testing.
- Mom continues to say she will BF when child returns to her care for first few months, finally agrees not to BF and child returned.
- Baby HIV-negative by DNA PCR at 12, 18 mo.
Case #2

- 24 year old, perinatally infected woman, G1P0, treated from infancy (era of mono- then dual-therapy), fully suppressed on triple ART since 11 years old

- Has done a lot of reading about breastfeeding, knows benefits, thought she never would be able to BF, but now has read about WHO recommendations and "really wants to try it"
Case #2

- Primary care and adult ID physicians tell her it is not recommended to BF in Canada, but “probably fine”
- Counseled by peds ID at 30 weeks about what is known and unknown re: BFing with HIV, VL in breastmilk sometimes not correlated with plasma, would require frequent monitoring and treatment for baby
- Willing to comply, wants “to try it”
Case #2

- Provided with reading materials
- Nurse calls back 1 month later – mom has reconsidered and doesn’t want to put baby at even small risk, chooses formula feeding
Woman-centred versus Child-centred care

- Ideally, care should be both woman-centred and child-centred
- But sometimes what is in the best interest of mom is not always in best interest of baby
- Must have professionals advocating on both sides to clearly see all points of view
Reducing Risk to the Baby – More Than Just Medicines

Tess Barton, MD
Associate Professor, Department of Pediatrics
Baylor College of Medicine
Houston, Texas

October 9, 2015

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Factors that Complicate Breastfeeding

- Early latching & infant feeding skills
- Breast health
- Infant oral health, teething
- Mixed feeding
- Involvement of other caregivers
- When and how to wean
- Loss of maternal virologic control
- Potential toxicity of infant medications
Suggested Talking Points

- Formula feeding is safest
- Undetectable viral load throughout breastfeeding is an absolute requirement
- Planning ahead for feeding in hospital, lactation consults, breast pumps, caregivers, weaning
- Maintaining breast health
- Possible use of additional infant medications
- Infant testing schedule
Breast Health & Weaning

- Mastitis and bleeding nipples likely increase HIV transmission risk
  - Indication for immediate weaning (unless there is a stock of frozen expressed breast milk/EBM)

- Weaning is difficult for both mom & baby
  - EBM via bottle for a few weeks before switching to formula
  - Ways to combat engorgement
Infant Testing

- Normal testing schedule: 2 weeks, >1 mo, >4 mo
- Consider more frequent testing since exposure ongoing
- Prophylaxis should be given 4 weeks after last breastfeeding exposure
- HIV PCR needs to be done following cessation of prophylaxis
The Great Unknowns

- Infant prophylaxis
  - Most effective regimen? Monotherapy vs. dual therapy?
  - Optimal duration of prophylaxis? 6 weeks vs. throughout breastfeeding

- Appropriate testing schedule
  - How often to test mom’s viral load? Frequency of infant PCR testing?
Current Practice at Texas Children’s Hospital

- Exclusive breastfeeding
  - No formula, juice, foods, etc.
    - Any additional items are an indication to wean immediately
    - No formula available in the home

- Monthly testing
  - Maternal VL by OB; HIV PCR in baby – last test 6 weeks after cessation of BF, or >4 mo of age, whichever is later
  - Monthly discussion of breast health

- ZDV x 6 weeks

- NVP from birth until 4 weeks after cessation of breastfeeding
Case #1

- Young mother, first pregnancy, African origin, graduate student
- HIV+ prior to pregnancy, always adherent
- Has not disclosed to any other family members
- Mother will come from Africa for 1-2 months to help with the baby
- Interested in nutritional value of breastmilk, but concerned about HIV risk
- 6 weeks maternity leave, then returning to school/work and send baby to day care
Case #1

1. Is she a good candidate for breastfeeding? Positive factors, negative factors?
2. What is her main barrier to formula feeding?
3. What specific topics should she be counseled on?
Case #2

- 34 year-old G3P2 mom, medical tourist from Nigeria, in US to deliver baby
  - Known HIV+, brought meds from Nigeria (AZT/3TC/NVP, Triomune)
- Plans to return to Nigeria and breastfeed per usual custom until 6-12 months
  - Has care for herself in Nigeria, but not sure where infant testing done
- Nigeria protocol (Option B+)
  - Ongoing maternal ARVs, infant NVP x 6 weeks
  - Test at 6 weeks, and 1 mo after last BF
Case #2

- What should this infant’s prophylaxis and testing entail?
- What arrangements need to be made to link the infant into care?
  - Don’t forget Release of Information consent
- What to do when solid foods are introduced?
Case #2 - A Complication

- Day of life #1 – poor infant latching, only scant milk production

- Infant estimated to have eaten only 4-6oz in 1st 24 hours; Reduced urine output by 24 hours of age, weight decreased 3% - dehydrated

- Do you give the baby formula? IV fluids? Does breastfeeding stop?
Case #2 - A Complication

- **Outcome:**
  - Decision made to feed the baby formula – infant took well, with improved urine output
  - Mother chose to switch to formula
  - NVP stopped; ZDV x 6 weeks
    - Note: only 4 weeks provided by hospital, had to get remainder filled at community pharmacy
  - Infant testing at 2 weeks – negative
  - Returned to Nigeria – 6 week testing negative (mom sent happy email)
Panel Discussion

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<tbody>
<tr>
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Population Health Division
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