

# Clinicians' Questions about Perinatal HIV Transmission and Perinatal Care Experience of the National HIV Telephone Consultation Service and Perinatal Hotline

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## Background

Perinatal HIV care presents unique prevention and treatment challenges. Clinicians require information and expert consultation on clinical issues, including:

- risk of perinatal HIV transmission
- rapid and standard HIV testing
- antiretroviral therapy in pregnancy and labor & delivery
- care and testing of the HIV-exposed newborn.

A new Perinatal Hotline has been developed as part of the HRSA AIDS Education and Training Centers (AETC) National HIV/AIDS Clinicians' Consultation Center (NCCC). The purpose of this hotline is to provide consultation for clinicians caring for HIV+ pregnant women and HIV-exposed infants.

The NCCC has been providing two free telephone consultation services:

**PEPLINE** 1-888-448-4911

- National Clinicians' Post-Exposure Prophylaxis Hotline
- 24-hours, 7 days a week

**Warmline** 1-800-933-3413

- National HIV Telephone Consultation Service
- Monday through Friday, 8am - 8pm EST

The Warmline provides consultation to clinicians on all aspects of HIV care, including perinatal issues. Warmline experience suggests that some perinatal questions require the availability of 24-hour consultation, such as those concerning management of HIV+ women in labor or care of exposed infants.

To meet this need, the NCCC expanded in December 2004 to include an additional free telephone consultation service:

**Perinatal Hotline** 1-888-448-8765

- National Perinatal HIV Consultation and Referral Service
- 24-hours, 7 days a week

To anticipate the types of questions to be asked on the Perinatal Hotline, we reviewed calls about perinatal topics received on the NCCC's Warmline.

## Methods

All Warmline calls were documented on an electronic database. After each call, Warmline clinicians assigned keywords to identify the call content.

The database of Warmline calls from September 22, 2002 through September 30, 2004 was searched for the following keywords: perinatal; prenatal; pregnancy; infant; and neonatal.

A **call** was defined as the entire discussion between caller and consultant.

A **presenting question** was defined as the specific request for advice that prompted a call. There could be multiple questions per call.

A **topic** was defined as a subject discussed during the course of a call. There were more topics than presenting questions for several reasons, for example:

- Callers discussed key aspects of patient care that they did not have specific questions about;
- Callers asked additional questions in the course of discussing their initial questions;
- Consultants generated additional issues relevant to the callers' presenting questions;
- Consultants asked about plans for future care of a patient (e.g., reviewing plans for labor & delivery with a caller whose initial question was about HIV monitoring in pregnancy).

A list of perinatal topics was generated by reviewing relevant Warmline calls. This list was used to create a coding system for classifying perinatal discussions in detail (see next column).

Calls were then coded by this system according to:

1. presenting question(s);
2. topic(s).

## Results

- 4166 Warmline calls were reviewed
- 234 (5.62%) perinatal calls were identified
- Callers had an average of 1.37 presenting questions per call:
  - 167 callers asked 1 question
  - 52 callers asked 2 questions
  - 15 callers asked 3 or more questions
- 581 total topics were discussed
  - an average of 2.48 topics discussed per call

### Coding System for Perinatal Calls

#### 1. Contraception

#### 2. Pre-conception

#### 3. HIV care in pregnancy

- Primary/Acute Infection
- Transmission risk
- ARV choice/timing
- HIV monitoring
- Adherence
- ADR (toxicity, intolerance, teratogenicity)
- Drug-drug interaction
- Other drugs
- Prenatal care issues (e.g. immunization, genetics)
- OI prophylaxis
- Management of OIs
- Management of co-infections (TB, HCV, HBV, HSV, GC, CT, syphilis, HPV)
- Resistance
- ARV registry
- Post-partum
- Referral for further care
- Other "HIV care in pregnancy"

#### 4. Testing in Pregnancy

- Rapid tests
- Western Blot/ELISA
- Viral load
- Indeterminate or discordant test results
- False positive
- Predictive value (+ or -) of test
- Window period
- Choice of test
- GART or phenotype available
- GART or phenotype recommended
- Testing, Other

#### 5. Labor and Delivery

- ARV in labor
- Mode of delivery
- Intrapartum management (e.g. use of pitocin, ruptured membranes, forceps)
- New HIV+ test result in L+D
- High-risk delivery (VL detectable or unknown, resistant virus, P-PRM [premature pre-term rupture of membranes])
- Other "L & D"

#### 6. Infant Care

- Testing (including choice of test)
- HIV+ test result for infant
- ARVs, PEP (standard)
- ARVs, PEP (high-risk delivery)
- ARVs for HIV+ infant
- Adherence
- ADR (toxicity, intolerance)
- Drug-drug interaction
- OI prophylaxis
- Feeding
- Immunization
- Infant, Other

#### 7. Seeking Information

- Guidelines
- Protocols/ order sheets
- Patient educational material
- Literature references
- NCCC-related information
- General Information/Other Information

## Major Topics and Selected Sub-Topics

Topic	Presenting Questions (n=320)	Topics Discussed (n=581)
<b>HIV Care in Pregnancy</b>	<b>141 (44.0%)</b>	<b>242 (41.7%)</b>
ARV choice/timing	74	88
ADRs (toxicity, intolerance, teratogenicity)	20	59
Prenatal care (HIV monitoring, vaccines, etc)	4	13
<b>Testing in Pregnancy</b>	<b>58 (18.1%)</b>	<b>117 (20.1%)</b>
Rapid tests	3	6
Indeterminate or discordant test results	18	20
False positive	4	17
<b>L&amp;D</b>	<b>30 (9.4%)</b>	<b>66 (11.4%)</b>
ARV in labor	15	27
Mode of delivery	10	30
<b>Infant Care</b>	<b>57 (17.8%)</b>	<b>98 (16.9%)</b>
Testing	18	30
ARVs for post-exposure prophylaxis	27	46
<b>Seeking Information</b>	<b>21 (6.6%)</b>	<b>42 (7.2%)</b>
Guidelines	8	20
<b>Preconception/Contraception</b>	<b>13 (4.1%)</b>	<b>16 (2.7%)</b>

### Sample Perinatal Questions

- A patient in labor has a positive rapid HIV test:
  - *Is this a true positive?*
  - *Should the mother and child be treated with ARVs?*
- A woman is diagnosed with HIV when she is 8 weeks pregnant. She has some morning sickness:
  - *Which ARVs should be given and when should they be started?*
- An HIV+ woman is 34 weeks pregnant with a VL of 600:
  - *Does she need a C-section? If so, when should this be performed?*
- An HIV+ woman is at high risk for transmission because of prolonged rupture of membranes in labor:
  - *How should labor and delivery be managed?*
  - *Are there any special considerations in treating the infant?*
- An infant is born to an HIV+ positive mother with good prenatal care:
  - *Which ARVs should be started?*
  - *What is the testing protocol for HIV-exposed infants? How is HIV definitively ruled-in/ruled-out?*

## Conclusions

Clinicians' questions about perinatal HIV care fall into four major categories:

- 44% of calls (n=141) concerned the management of HIV in pregnancy, with more than half (52.5%) addressing ARV therapy.
- 17.8% of calls (n=57) pertained directly to the care of HIV-exposed infants.
- 18.1% of calls (n=58) addressed HIV testing in pregnancy, including rapid testing.
- 9.4% of calls (n=30) concerned labor & delivery. Many of these involved questions about women in active labor when timely decisions need to be made.

## Discussion

- The urgency of some perinatal HIV questions, especially questions about management in labor & delivery and care of infants, supports the need for a 24-hour consultation service.
- Questions regarding HIV testing are expected to increase substantially with the increased emphasis on testing pregnant women and the more widespread use of rapid HIV testing.
- A Perinatal Referral Network is being developed alongside the Perinatal Hotline to help clinicians connect their patients to appropriate HIV care providers.

 National HIV/AIDS Clinicians' Consultation Center

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