Prenatal HIV: Public Health Guidelines for the Management and Follow-up of HIV Positive Pregnant Women and their Infants

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Alberta

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(May 2006-December 2007)

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Introduction

In September 1998, Alberta Health and Wellness (AHW) introduced a Prenatal HIV Screening Program. Since then, all pregnant women in Alberta have been offered testing for human immunodeficiency virus (HIV) as part of routine prenatal care.

Key components of the program include routine testing for HIV and offering HIV positive pregnant women appropriate antiretroviral drugs (ARV) to reduce the risk of transmission of HIV to the baby. A draft prenatal HIV program, developed in 1999, was not finalized and was only partially implemented by regional health authorities (RHA).

Despite incomplete implementation, the program has been successful in reducing transmission of HIV from mother to baby. Since routine prenatal screening was introduced in September 1998, five children born in Alberta have been infected with HIV: the first and second infants were diagnosed HIV positive in November 1998 and in August 1999 and were born to mothers who were not tested for HIV in pregnancy; the third infant was a late post-natal transmission (after 12 months) with undetermined mode of acquisition of infection; in the fourth case, insufficient information is available to determine reason for transmission. In addition, a baby born in 2006 who died of non-HIV related causes was positive for HIV by quantitative PCR but was not included in provincial perinatal statistics as the case did not meet existing case surveillance criteria for counting a case [i.e. the infant did not live long enough (longer than 12 to 18 months) to undergo confirmatory testing by HIV antibody]. In addition to these cases, three infants were born outside of Canada in HIV endemic countries and acquired HIV through perinatal transmission.

There continues to be concern regarding the systematic follow-up of women identified as HIV positive and determination of maternal HIV status at the time of delivery. Anecdotal reports suggest that both women and babies are occasionally being lost to follow-up and, therefore, receiving inadequate treatment and follow-up due to unclear policies and procedures. Although Alberta has one of the best screening programs for HIV in pregnancy in the world (CDC, 2002), limited provincial data is available on the number of pregnancies each year in HIV positive women, delivery sites, antiretroviral therapy received by mother and child, mode of delivery and outcomes of babies born to HIV positive mothers.

Purpose

The purpose of this document is to:

1) Describe guidelines and reporting processes for the prenatal HIV program to achieve the following goals:

- Identification of HIV positive pregnant women.
- Provision of education and appropriate medical intervention to improve the woman's health and reduce HIV transmission from mother to infant.
- Develop procedures for follow-up of infants born to HIV positive women.
- Enhance provincial surveillance of prenatal HIV (mothers and infants) to determine health outcomes and for program planning.

and

2) To describe the roles and responsibilities of the key participants in the delivery of the current HIV program and proposed responsibilities for follow-up of HIV positive mothers and their infants.

This document is intended for use by: public health professionals, family physicians, midwives, obstetricians, infectious diseases/HIV specialists (adult and pediatric) and staff of provincial HIV programs.

Organization of Document

The document begins with a description of the principles guiding the program and an overview of the key program elements:

- HIV testing in pregnancy
- Prenatal care
- Labour and delivery
- Follow-up of mother and child postpartum
- Reporting

Roles and responsibilities for the program elements are described for:

- Testing clinician
- Adult infectious diseases/HIV specialist
- Pediatric infectious diseases/HIV Specialist
- Delivery hospital/unit
- Provincial Laboratory for Public Health
- Medical Officer of Health/designate for Regional Health Authorities (RHA), First Nations and Inuit Health (FNIH)
- Alberta Health and Wellness (AHW)

Recommendations are included in each section and were, in part, extracted from the HIV section of the *Public Health Notifiable Disease Management Guidelines* (AHW, 2005) and the *Alberta Prenatal Screening Program for Selected Communicable Disease: Public Health Guidelines* (AHW, June 2006). Some of the recommendations in this document were developed to improve linkage between the stakeholders involved in providing care to HIV positive pregnant woman and their infants.

Appendix A is the management protocol for women and infants. Appendix B is the HIV Case Definition. Appendix C is the *Care Plan for HIV Positive Mother and Infant Form* (to be completed at least four weeks prior to estimated date of delivery). Appendix D is the *Prenatal HIV Screening Outcome Report Form* (to be completed 18 to 24 months after delivery.) Appendix E is a Glossary of Terms and Appendix F contains contact information.

Principles

- All pregnant women in Alberta have access to prenatal HIV screening.
- It is strongly recommended that all pregnant women be screened for HIV.
- All pregnant women receiving prenatal care are informed that HIV screening is a routine part of prenatal care and that they have the choice to decline HIV screening.
- Any pregnant woman who declines HIV testing is informed of the potential risks to herself and her unborn child of not testing.
- All women who test HIV positive are offered antiretroviral treatment (as appropriate).
- All HIV positive pregnant women are referred to an adult infectious diseases/HIV specialist and all infants born to HIV positive mothers are referred to a paediatric infectious diseases/HIV specialist.
- All HIV positive pregnant women in urban and rural regions are offered support pre and post delivery and are involved in the development of long-range plans for continuity of medical care and antiretroviral therapy after the birth of their child.
- All women who present in labour who have not received prenatal care or who may have been at risk of acquiring HIV during pregnancy after an earlier negative HIV test are offered stat/rapid HIV testing.
- The same standard of prenatal, hospital and postpartum care and follow-up is available to all pregnant HIV positive women in Alberta, including women living on First Nations communities.
- All infants born to HIV positive mothers receive follow-up to determine HIV serostatus by the age of 18 months of age.
- All HIV positive women are provided with information and a range of options on family planning.

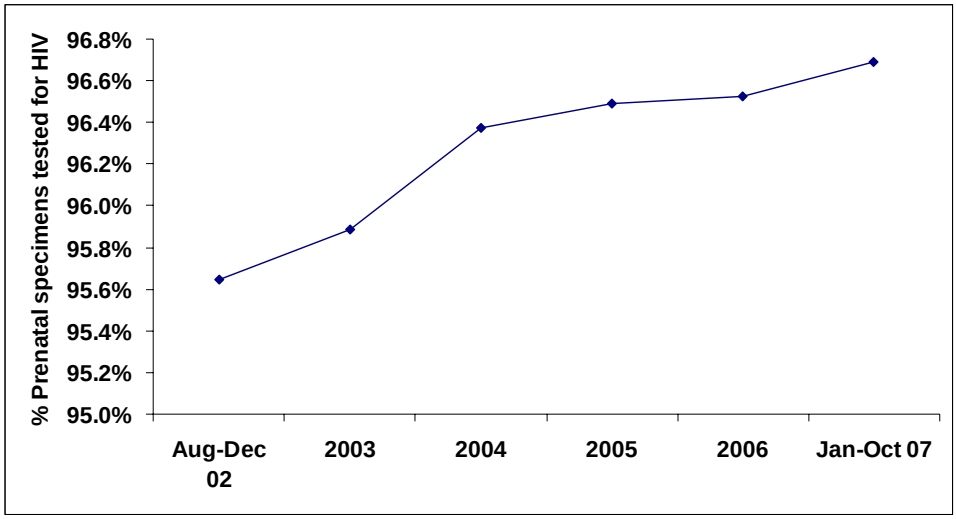
Program Overview

HIV TESTING IN PREGNANCY

The first step in managing HIV infected pregnant women is the identification of infection with HIV. In September 1998, Alberta Health and Wellness introduced the Prenatal HIV Screening Program. Since then, all pregnant women in Alberta have been offered testing for HIV as part of routine prenatal care. In Alberta, an "opt-out" approach to prenatal HIV screening is in place, in which HIV testing is routinely offered with the option to decline. Prenatal information resources for clinicians and pregnant women were recently revised (see Resources). All HIV testing in pregnant women should be sent on a Provincial Laboratory for Pubic Health *Prenatal testing – Initial Screen for Pregnant Women* requisition (see Resources). In a review of factors contributing to acceptance of routine prenatal screening for HIV in pregnant women in Alberta, First Nations women and women of increasing age were more likely to decline testing (Wang, 2005). Women of older age and women with First Nations status in Alberta have been disproportionately represented with HIV in Alberta (Alberta BBP Surveillance report, 2003).

Between August 2002 and October 2007, the average testing rate in women accessing prenatal care in Alberta was 96.3% as depicted in Graph 1.

Graph 1: Average testing rate for women accessing prenatal care in Alberta: August 2002 – October 2007



In the same time period, approximately 43% of the pregnant women testing HIV positive through prenatal screening were previously known to be HIV positive (Source: Dr. B. Lee, Provincial Laboratory for Public Health, 2007). This may be an underestimate as a retrospective review of HIV positive pregnant women reported to Capital and Calgary Health regions in 2002 revealed that approximately one-third of known HIV positive pregnant women were not retested for HIV (antibody) while pregnant (Source: Dr. A. Singh, AHW). Possible reasons for not retesting for HIV in the prenatal period may include: HIV serostatus known, client declined re- testing or the test was not offered. A recent anonymous opt-out HIV seroprevalence study of pregnant women in Alberta identified three women who tested positive of 4343 women who did not undergo HIV testing between 2002-2004 (Plitt, 2007); this study highlights the need for universal HIV testing in pregnancy.

It is anticipated that with increasing use of antiretroviral drugs in pregnancy and increasing life expectancy of HIV positive pregnant women, the number of pregnancies in women known to be HIV positive will increase in the future.

Recommendations

- All women be offered HIV testing early in pregnancy or, in some cases, pre-conception.
- Women testing negative during early pregnancy who have characteristics associated with increased risk for HIV should be retested in the late third trimester and/or during labour. Stat/rapid HIV testing may prove of particular benefit in testing women in labour and is currently available at all delivery hospitals in Alberta by consulting with the virologist on call at the Provincial Laboratory for Public Health.
- Women presenting in labour who have not received prenatal care should also be screened for infection with hepatitis B and syphilis. Refer to *Alberta Prenatal Screening Program for Selected Communicable Disease: Public Health Guidelines* (AHW, June 2006).

DISCORDANT COUPLES

Ideally, serodiscordant couples (HIV positive males and HIV negative females) should undergo pre-pregnancy counseling (e.g. by HIV specialist, Fertility clinic, etc) and be provided with options regarding pregnancy and methods to reduce the risk of acquisition of HIV by the woman. Pregnant HIV seronegative partners of known HIV positive men are at risk of acquiring HIV during pregnancy due to ongoing sexual or other exposure to HIV during the pregnancy. HIV seroconversion during pregnancy poses a greater risk of transmission to the fetus due to higher circulating viral load shortly following acquisition of HIV.

For the duration of their pregnancy, these women and their babies should be identified as priorities for additional follow-up by clinicians and public health. Although clear guidelines are not available with regards to the type and frequency of follow-up, the following may serve as a guide:

- Baseline HIV RNA and antibody testing
- Monthly HIV RNA testing until delivery
- Rapid HIV testing at the time of delivery
- Follow-up evaluation and testing of infant based on advice provided by a Pediatric Infectious Diseases physician. This will largely be determined by the information available about the mother.

While the roles and responsibilities of clinicians and public health have not been clearly elucidated in this situation, it is recommended that the regional MOH/designate coordinate and monitor the follow-up of both mothers and infants.

Program Overview

PRENATAL CARE

The most important predictor of transmission of HIV from an HIV positive pregnant woman to her baby is maternal HIV RNA level (viral load) at the time of delivery (Mofenson, 2000; Garcia, 1999; Coll, 1997; Sperling, 1996; Mofenson, 1999; Dickover, 1996; Cao, 1997; Mayaux, 1997). In general, the higher the plasma viral load, the greater the risk of transmission; however, transmission occurs only rarely at viral loads less than 1000 copies/mL (Ioannidis, 2001). Therefore, the goal of treatment of the mother during pregnancy is to achieve an undetectable viral load or a viral load of less than 1000 copies/mL during the later stages of pregnancy and particularly at the time of delivery. Many HIV infected women will require various types of practical and psychosocial support, depending on their individual situations in order to meet this goal. Choice of ARV will be decided by the adult infectious diseases/HIV specialist but will generally follow established national and U.S. guidelines (Burdge, 2003; Public Heath Service Task Force, 2007). Compliance with ARV is the single most important factor in achieving this goal.

Recommendations

- All HIV positive women should be referred to or managed in consultation with a HIV specialist as soon as possible after diagnosis. For women diagnosed in labour, both adult and pediatric infectious diseases/HIV specialists should be contacted as soon as possible by telephone.
- Women not already taking ARVs will be offered combination ARV from as early as 14 weeks. For known HIV sero-positive women on ARV, urgent assessment by their HIV specialist is important to determine safety of drugs during pregnancy, especially during the first trimester.
- All HIV positive pregnant women should be referred to or managed in consultation with an obstetrician with experience in managing HIV positive women.
- All HIV positive pregnant women should be notified to regional public health.
- Other care issues and appropriate referrals (e.g. substance and alcohol abuse, mental health, housing) should be addressed.
- Other health issues should be addressed (e.g. STI, hepatitis B, other prenatal screens, diabetes, blood pressure, urinalysis, etc).

LABOUR AND DELIVERY

Mode of delivery is an important factor in HIV transmission. A meta-analysis of 15 prospective studies showed that the rate of HIV transmission is reduced by approximately 50% with elective cesarean section as compared with normal vaginal delivery (International Perinatal HIV Group, 1999). However, for women on combination antiretroviral therapy, particularly when shown to be effective by an undetectable viral load, cesarean section may not be of any significant additional benefit (Thorne, 2005). Other factors that increase the risk of transmission include use of invasive monitoring (e.g. fetal scalp monitoring), forceps, episiotomy and possibly external cephalic version. Therefore, the indications for performing these procedures should be considered particularly carefully in HIV positive pregnant women (Burdge, 2003).

Recommendations

- No invasive obstetric or fetal monitoring procedures should be performed without careful consideration of potential for risk of transmission of HIV to the fetus/infant.
- Need for cesarean section for reduction of HIV transmission should be determined by HIV specialist in conjunction with obstetrician (Appendix A).
- Intravenous zidovudine (AZT) should be administered to the pregnant woman from onset of labour to delivery or three hours prior to cesarean section until delivery.

Program Overview

FOLLOW-UP OF MOTHER AND CHILD POSTPARTUM

Choice and compliance with ARV are important factors in reducing transmission to the baby. Breastfeeding is responsible for a significant proportion of perinatal transmission, with meta-analyses showing that the risk of transmission is 7 to 22% greater than for women who did not breastfeed (Dunn, 1992).

Recommendations

Infants

- Infant should be washed with soap and water immediately post-delivery prior to venipuncture or intramuscular injections.
- Infants born to HIV positive pregnant women should not be breastfeed. All babies are eligible for free infant formula for up to one year. This may be obtained at no cost to the mother through the northern or southern Alberta HIV programs.
- Infants born to HIV positive mothers require close follow-up during the first six weeks to monitor compliance with ARV therapy – notify regional public health upon discharge from hospital to assist.
- All infants born to HIV positive mothers should be followed by a pediatric infectious diseases/HIV specialist for up to 18 months.

Mothers

- Regional public health should contact the mother within 24 hours of discharge from hospital.
- Mother should be followed by an adult HIV specialist within six weeks of delivery, although recommendations regarding continuation or discontinuation of ARV after delivery, should be determined by HIV specialist in conjunction with the pregnant woman prior to delivery.
- The mother should receive postpartum contraception counseling. It may be appropriate to initiate this discussion prior to delivery, especially if tubal ligation is a possibility and a cesarean section will be performed. In some situations, administration of Depo Provera prior to discharge may be appropriate.

Program Overview

REPORTING REQUIREMENTS FOR HIV PRENATAL POSTIVE TESTS

Laboratories

A positive test for HIV antibody from all sources is reportable nominally by all laboratories within 48 hours to:

- Chief Medical Officer of Health (CMOH) or designate
- Medical Officer of Health (MOH) or designate for the RHA
- Attending/ordering physician

Physician/Testing Clinician

- All new positive HIV antibody tests in pregnant women should be reported to regional MOH/designate within seven days of the positive test.
- All pregnancies in women known to be HIV positive should be reported to regional MOH/designate within seven days of the positive pregnancy test.

Regional Health Authority

The MOH (or designate) shall forward the following information for all newly diagnosed HIV positive pregnant women to Alberta Health and Wellness within 14 days:

- Name
- Date of birth
- Testing physician
- Alberta Health Care Number
- Last menstrual period or expected date of delivery

MOH (or designate) responsible for reporting and follow-up shall complete and forward the following reports for newly diagnosed HIV cases in Alberta to the CMOH (or designate) and labelled "Medical Confidential" within eight weeks of receipt of notification. Effective January 1, 2008, use the *Alberta Health HIV/AIDS Case Report form.*

For out-of-province reports, the following identifying information shall be forwarded to the CMOH within seven working days of new positive HIV test in pregnant woman or pregnancy in known HIV positive woman:

- Name
- Date of birth
- Out-of-province health care number
- Out-of-province address
- Attending physician (locally and out-of-province)

By 24 months of baby's age or within four weeks of confirmation of infant's HIV serostatus, complete *Prenatal HIV Screening Outcome Report Form* (Appendix D).

Roles and Responsibilities

ROLE OF THE TESTING PHYSICIAN/CLINICIAN

Reporting

- Inform the woman about HIV screening and her right to decline screening.
- Ensure that any woman who declines screening is informed of the potential risks to both herself and her unborn child of not being tested.
- Refer the woman for prenatal HIV testing.
- Discuss the implications of positive test results with the woman within seven days of receiving notification of a positive HIV result.
- Refer woman to a HIV specialist.
- Notify regional MOH/designate within seven days of:
    - Newly diagnosed pregnancy in known HIV positive woman.
    - Pregnant woman with newly diagnosed HIV.

Prenatal Care

- Provide regular prenatal care or refer to a physician with experience in managing HIV infected patients, in conjunction with the HIV specialist.
- Monitor, support and encourage adherence with ARV throughout pregnancy.
- If the testing clinician is the obstetrician, then a delivery plan needs to be in place, which should include but is not limited to:
    - Type of delivery, e.g. elective caesarean section versus vaginal delivery
    - Availability of antiretroviral drugs for mother and infant at time of delivery

Follow-up

- In consultation with the HIV specialist, determine/develop a long-term plan for continuity of medical care for the woman post-delivery.
- Ensure referral of infant to a paediatric infectious diseases specialist.

Roles and Responsibilities

ROLE OF THE ADULT INFECTIOUS DISEASES/HIV SPECIALIST

Reporting

- Confirm that regional MOH/designate has been notified of pregnancy in HIV positive woman within seven days of positive test for HIV in a pregnant woman or positive pregnancy test in a known HIV positive woman.

Prenatal Care

- Discuss the alternatives regarding the pregnancy: continue or terminate the pregnancy.
- Assess and recommend antiretroviral therapy.
- Ensure regular review of the client for appropriate clinical and laboratory monitoring such as monthly viral load.
- Initiate communication with a paediatric infectious disease specialist to facilitate decisions regarding antiretroviral treatment of the neonate.
- Initiate communication/referral to obstetrician to facilitate decisions regarding mode of delivery.
- All letters should be copied to regional MOH/designate where the mother lives and where she is expected to deliver.
- Monitor antiretroviral adherence by history, viral load testing and other means, and involve other individuals and agencies to support adherence as necessary.

Labour and Delivery

- Approximately four weeks prior to expected date of delivery or as soon as delivery management can be determined (e.g. based on maternal viral load and other factors), prepare, in consultation with the pediatric infectious diseases specialist, a written management plan (Appendix C) to include: recommended ARV for mother from onset of labour/prior to caesarean section until delivery; recommended mode of delivery; ARV regimen for infant; plan for postpartum continuation or discontinuation of ARV in mother; and other management recommendations (e.g. HIV RNA test on mother at delivery, etc).
- Provide the regional MOH/designate where the mother lives and where she is expected to deliver with the written preliminary management plan.

Follow-up

- Participate in the coordination of care along with attending physician, paediatric infectious disease specialist, other health professionals and social service and other agencies where necessary to ensure that both mother and child receive appropriate follow-up.

Roles and Responsibilities

ROLE OF THE PEDIATRIC INFECTIOUS DISEASES/HIV SPECIALIST

Reporting

- Confirm that regional MOH/designate has been notified of the infant to be born to or already born to HIV positive woman.

Prenatal Care

- Together with adult infectious diseases/HIV specialist, determine recommended mode of delivery and ARV for infant post-delivery.

Labour and Delivery

- Approximately four weeks prior to expected date of delivery or as soon as delivery management can be determined (e.g. based on maternal viral load and other factors), determine in conjunction with the adult infectious diseases/HIV specialist, a management plan (Appendix C) to include: recommended ARV for mother from onset of labour/prior to caesarean section until delivery; recommended mode of delivery; ARV regimen for infant; plan for postpartum continuation or discontinuation of ARV in mother; and other management recommendations, (e.g. HIV RNA test on mother at delivery, etc).

Follow-up

- Participate in the coordination of care along with attending physician, adult infectious disease specialist, other health professionals and social service and other agencies where necessary to ensure that both mother and child receive appropriate medical follow-up (e.g. follow-up appointments and laboratory tests).

Roles and Responsibilities

ROLE OF THE DELIVERY HOSPITAL/UNIT

Labour and Delivery

- Notify regional medical officer of health/designate, adult HIV specialist, responsible obstetrician and pediatric infectious disease specialist that pregnant woman is in labour and/or delivered.

Roles and Responsibilities

ROLE OF THE PROVINCIAL LABORATORY FOR PUBLIC HEALTH

Reporting

- Analyse the prenatal HIV test through standard enzyme immunoassay and confirmatory tests.
- Notify the attending physician, by telephone, of a positive prenatal HIV result the same day as the confirmation of positive or indeterminate results.
- The PLPH must forward a hard copy (with unique identifier), on the same day, by mail or secure facsimile to the:
  - Attending physician
  - MOH of the region in which the individual is residing
  - Chief Medical Officer of Health/designate

Follow-up

- Perform laboratory tests on infants as recommended by the pediatric infectious diseases/HIV specialist.

Roles and Responsibilities

ROLE OF THE REGIONAL MEDICAL OFFICER OF HEALTH (MOH)/DESIGNATE[1]

Reporting

- Follow up with the testing physician within seven days of confirmation of positive HIV test to discuss appropriate follow-up.
- Advise FNIHB if client lives on reserve.
- Determine if the client was previously diagnosed or if this is a new diagnosis.
- If the client was previously diagnosed, it is the responsibility of the MOH/designate to determine:
  - When was the diagnosis first made?
  - Where was the laboratory test performed?
  - If injection drug use is a factor, was a test for hepatitis C performed?
  - Has the client been referred to HIV specialist? When? Who?
  - Is the client already taking antiretroviral mediation? If not, what are possible barriers to good medication adherence, e.g. lack of transport, stable housing, etc?
  - What is the anticipated outcome for the pregnancy (i.e. termination, carry to term)?
  - What is the expected delivery date and in which hospital?

Prenatal Care

- The MOH is responsible for following the outcome of the pregnancy.
- Advise the testing physician of assistance available to the physician and/or client through regional public health.
- Identify a public health nurse to act as a contact for the client and provide support as assessed on a case-by-case basis to improve compliance with medication regimen and client follow-up.

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[1] *Role of FNIHB – for women living on a First Nations community, FNIHB MOH/designate should be notified and a case-by-case management plan developed in conjunction with the regional MOH/designate. Each case will be evaluated and managed in accordance with resources available in the First Nations community as well as preferences for follow-up on the part of the mother.*

Roles and Responsibilities

Labour and Delivery

- Ensure management plan (Appendix C) has been completed, whenever possible, at least four weeks prior to delivery.
- If the client lives outside of a major urban centre, the MOH must advise the nearest local (rural) hospital of the case and the potential for use of the site in the event of unexpected onset of labour.
- In conjunction with HIV specialist and designate pharmacy in either Northern or Southern Alberta (Appendix F), arrange for the medications for the pregnant woman, as specified by the medication protocol, to be sent to the delivery hospital at least two weeks (or as soon as possible) prior to the date of delivery.
- In conjunction with HIV specialist and designate pharmacy in either Northern or Southern Alberta (Appendix F), arrange to send a six week supply of oral antiretroviral medication (in paediatric suspension form) to be taken by the infant starting in the immediate post partum period.
- In the event that the infant is not discharged into the care of the natural mother, the attending physician must notify regional MOH/designate. The regional MOH/designate will then contact Alberta Children's Services to determine region and proposed home of infant post discharge from hospital.

Roles and Responsibilities

Follow Up

- Ensure that the mother has been advised that breastfeeding is not recommended and ensure adequate supply of infant formula has been provided. It may be appropriate to provide the mother with a small supply, (e.g. two to four weeks) prior to delivery to ensure that it is available immediately following birth.
- Ensure that the public health nurse as designated by region is following the infant who has been prescribed antiretroviral medication for at least six weeks after birth.
- Provide support as determined on a case-by-case basis to mother (or guardian) to improve infant medication adherence and follow-up.
- The MOH (of the RHA in which the mother resides) must ensure that FNIHB is informed if an infant born to an HIV positive mother is going to a First Nations reservation following hospital discharge.
- Follow-up with the physician to ascertain if the infant has been referred to a paediatric infectious diseases specialist. If this has not happened, the MOH should strongly recommend that the attending physician make this referral.
- Collaborate with the attending physician and HIV specialist to ensure that appropriate laboratory tests are performed at the appropriate intervals to determine if the infant has acquired HIV infection.
- Issue directive to not administer BCG vaccine to an infant born to an HIV positive woman until the infant is proven NOT to have HIV infection. FNIHB MOH should be consulted.
- Ensure that complete instructions are provided on how and when the paediatric formulation of antiretroviral drugs should be administered.
- Complete the *Prenatal HIV Screening Outcome Report Form* at 18 to 24 months of the infant's age or within four weeks of determination of infant serostatus and submit to AHW.

Roles and Responsibilities

ROLE OF ALBERTA HEALTH AND WELLNESS

CMOH

- In collaboration with RHAs and stakeholders, develop guidelines and make recommendations for the public health management of HIV positive pregnant women and their infants.
- Conduct surveillance to monitor and evaluate public health measures to reduce the incidence of vertical transmission of HIV.
- Prepare and distribute an annual statistical summary of the Prenatal HIV program.
- Facilitate regional and cross-regional public health management of HIV positive pregnant and postnatal woman and their infants through the development of common reporting tools (e.g. Care Plan and processes)

Resources

Pregnant? Information on Routine Tests for Infections (folded 5 x 7.5 handout)
Useful to pregnant women undergoing prenatal tests for five communicable diseases: HIV, syphilis, hepatitis B, varicella and rubella.

Important News for Pregnant Women (8.5 x 11 poster)
A poster for locations where pregnant women visit a health care professional.

Fact Sheet for Physicians - Routine Screening for HIV (8.5 x 11 laminated poster)
A fact sheet for health professionals providing care to pregnant women.

Information for Health Professionals on HIV in Pregnancy **(**8.5 x 11 poster**)**
Information sheet for health professionals about HIV in pregnant women.

Quick Facts for Pregnant Women with HIV (4 x 4 pamphlet)
Information for HIV infected pregnant women.

Prenatal Laboratory Testing Requisition (available in electronic format)
Please complete in duplicate. Hard copies will still only require 1 page to be completed.

These resources may be obtained electronically through:

- Alberta Medical Association's website at www.albertadoctors.org. Click on Clinical Resources, Women's Health, HIV Screening
- Alberta Health and Wellness website at www.health.alberta.ca.

Hard copies may also be obtained with a faxed request to the AHW Forms Warehouse at 780-422-1695.

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Appendix A: Example Management Protocol For Woman and Infant

(Adapted from BC Guidelines for Antiretroviral Use in Pregnancy 2003 at www.oaktreeclinic.bc.ca)

PREGNANT

Unknown HIV Status And Recent High-Risk Activities (sharing needles, unprotected sex with HIV+ partner or partner of high risk) **CONSULT ADULT INFECTIOUS DISEASES PENDING RAPID HIV TEST**

HIV Positive Unsuppressed On No Antiretroviral Therapy In Pregnancy *Or* On Antiretroviral Therapy In Pregnancy And Recent (Within 1 Month) Viral Load Detectable (>1000 Copies/mL) *Or* Poor Adherence Prior To Delivery
If not in active labour & intact membranes consider c-section

Positive Suppressed On Antiretrovial Therapy In Pregnancy-Viral Load Suppressed (<1000 Copies/mL) And Good Adherence

May deliver vaginally

Mother During Labor/Delivery

IV zidovudine loading dose 2 mg/kg over 1 hour **then infusion** 1 mg/kg/hour until cord clamped.
and
Nevirapine 200 mg tablet orally x 1 dose (if no history of adverse reaction)

Mother During Labor/Delivery

IV zidovudine loading dose 2 mg/kg over 1 hour then **infusion** of 1 mg/kg/hour until cord clamped.
Continue mother's other oral antiretroviral therapy
Nevirapine is NOT needed.

Newborn:

Zidovudine PO or IV:

Newborn ≥ 35 weeks gestation:
PO 2 mg/kg or IV 1.5 mg/kg Q6H for 6 weeks

*Preterm Newborn 30 – 34 weeks gestation***.**
PO 2 mg/kg or IV 1.5 mg/kg Q12H x 2 weeks then Q8H until 6 weeks of age

Preterm Newborn <30 weeks gestation:
PO 2 mg/kg or IV 1.5 mg/kg Q12H x 4 weeks then Q8H until 6 weeks of age

AND/OR

Nevirapine suspension 2 mg/kg orally x 1 dose (No IV preparation available)
Note: If Nevirapine is administered to mother <1 hour prior to delivery, provide a 2nd dose to the newborn at 48 - 72 hours after birth

AND/OR

Other ARVS as prescribed by pediatric infectious diseases specialist

NOTE:
If no antiretroviral therapy to mother during labor/ delivery, start newborn treatment as soon as possible

Newborn:

Zidovudine PO or IV:

Newborn ≥ 35 weeks gestation:
PO 2 mg/kg or IV 1.5 mg/kg Q6H for 6 weeks

Preterm Newborn: 30 – 34 weeks gestation
PO 2 mg/kg or IV 1.5 mg/kg
Q12H x 2 weeks then Q8H until 6 weeks of age

Preterm Newborn: <30 weeks gestation
PO 2 mg/kg or IV 1.5 mg/kg Q12H x 4 weeks then Q8H until 6 weeks of age

Newborn does NOT require Nevirapine

REGIONAL PROTOCOLS SHOULD BE FOLLOWED WHERE AVAILABLE

Appendix B: HIV Case Definition

1.0 Provincial Reporting*:* Confirmed and probable cases of disease should be reported.

2.0 Type of Surveillance: case-by-case

3.0 Case Classification

3.1 Confirmed case

A confirmed case requires*:*

Adults, adolescents and children ≥ 18 months:

- detection of HIV antibody with confirmation (e.g. EIA screening with confirmation by Western blot or other supplemental tests)

3.2 Probable case

A probable case requires:

Children < 18 months (on a single sample)

- detection of HIV nucleic acid by quantitative or qualitative NAT

Appendix C: Care Plan for HIV Positive Mother and Infant Form

Care Plan for HIV Infected Pregnant Woman

- This form is to be completed at least 4 weeks prior to expected date of delivery.
- Retain original on chart and fax to Regional Medical Officer of Health/Designate.

Part 1 - Demographic Information

Name *Last*	*First*	*Middle*
Address		
City/town	Province/territory	Postal code

Birth date	Personal health number	Phone number	Expected date of delivery
Y Y Y Y M M D D	–	( )	Y Y Y Y M M D D

Name of family physician	Name of HIV specialist	Name of obstetrician

What health region does the patient live in?

☐ Chinook ☐ Calgary ☐ East Central ☐ Aspen ☐ Northern Lights ☐ FNIHB, specify name of reserve:
☐ Palliser ☐ David Thompson ☐ Capital ☐ Peace Country ☐ Out of province, specify:

Part 2 - Maternal information

Antiretroviral therapy *Please check (✓) all that apply:*	Date initiated	Dose and frequency	Duration
☐ Zidovudine	Y Y Y Y M M D D		
☐ Lamivudine	Y Y Y Y M M D D		
☐ Abacavir	Y Y Y Y M M D D		
☐ Combivir® (zidovudine + lamivudine)	Y Y Y Y M M D D		
☐ Kivexa® (abacavir + lamivudine)	Y Y Y Y M M D D		
☐ Truvada® (tenofovir + emtricitabine)	Y Y Y Y M M D D		
☐ Kaletra® (lopinavir + ritonavir)	Y Y Y Y M M D D		
☐ Nevirapine	Y Y Y Y M M D D		
☐ Other, specify:	Y Y Y Y M M D D		

Last CD4 count	Date of last CD4 count	Last HIV RNA level	Date of last HIV RNA level
cells/mm³	Y Y Y Y M M D D	copies/ml	Y Y Y Y M M D D

Planned mode of delivery based on last HIV RNA level? ☐ Vaginal ☐ Unknown ☐ C-section	Specify hospital where the delivery is planned to be:
Mother to continue ARV post delivery? ☐ Yes ☐ Unknown ☐ No	Recommended lab on mother at delivery: ☐ HIV RNA ☐ Other, specify: ☐ Syphilis EIA

Part 3 - Infant information

Recommended antiretroviral therapy *Please check (✓) all that apply:* (Antiretroviral therapy to be initiated ideally within 1 - 4 hours of birth.)	Dose and frequency	Duration
☐ Zidovudine		
☐ Lamivudine		
☐ Kaletra® (lopinavir + ritonavir)		
☐ Nevirapine		
☐ Other, specify:		

Name of pediatric ID specialist consulted

Part 4 - Completed by

Name of person completing this form (Please PRINT)	Position/Title	Phone number	Date completed
		( )	Y Y Y Y M M D D

AH2238 (2008/01)

Appendix D: Prenatal HIV Screening Outcome Report Form

Alberta Health and Wellness

Prenatal HIV Screening Outcome Report Form
(to be completed at 18-24 months after delivery)

Part A – Mother Section

Patient (Mothers') last name *(please print)* | First name

Patient address

City | Province | Postal Code

Date of birth Year Month Day | PHN

Date of HIV diagnosis | Physician name

Name of other involved physician(s) if applicable

Recent Immigration to Canada
☐ Yes ☐ No Specify Country _____ Year of Immigration _____

Is the patient *(please ask patient to assist you in answering this question)*
☐ White
☐ Black
☐ North American Indian ☐ Métis ☐ Inuit
☐ Asian *(e.g., Chinese, Japanese, Vietnamese, Cambodian, Indonesian, Laotian, Korean, Filipino, etc.)*
☐ South Asian *(e.g., East Indian, Pakistani, Sri Lankan, Punjabi, Bangladeshi, etc.)*
☐ Arab/West Asian *(e.g., Armenian, Egyptian, Iranian, Lebanese, Moroccan, etc.)*
☐ Latin-American *(e.g., Mexican, Central/South American etc.)*
☐ Other - includes mixed ethnicity *(specify)* _____

Date of treatment Year Month Day	**Treatment** (Specify drug regimen)

Date of delivery | IV AZT During delivery? ☐ Yes ☐ No

Type of delivery? ☐ Vaginal ☐ C-Section | Birth Outcome ☐ Live ☐ Stillbirth ☐ Intrauterine Death ☐ Pregnancy Terminated

If C-Section: 1. Obstetrical reason ☐ Yes ☐ No 2. To reduce HIV transmission ☐ Yes ☐ No

Part B – Infant Section

Infant last name *(please print)* | First name

Address *(if different from mother)*

City | Province | Postal Code

Date of birth Year Month Day | PHN

Date of treatment Year Month Day	**Treatment** (Specify drug regimen)

Infant's current HIV antibody status ☐ Positive ☐ Negative ☐ Unknown, specify
☐ lost to follow-up
☐ infant deceased
☐ _____

Breastfed ☐ Yes ☐ No

Infant's Physician

Reported by | Date

HS 001-134 (2003/02)

Appendix E: Glossary of Terms

Active Labour - The active phase of the first stage of labor is generally accepted to begin with a cervical dilation of three to four cm. or more, in the presence of uterine contractions.

AHW – Alberta Health and Wellness

Antiretroviral drugs (ARV) - Medications for the treatment of infection by retroviruses, primarily HIV.

AZT (zidovudine) - An antiretroviral drug for treatment of HIV, which is recommended as part of a regimen to prevent mother-to-child transmission of HIV during pregnancy, labor, delivery, and is given to the infant for up to six weeks after birth.

CMOH – Chief Medical Officer of Health

FNIH – First Nations and Inuit Health

HIV – Human immunodeficiency virus

ID – Infectious diseases

MOH – Medical Officer of Health

Opt-out approach (prenatal testing) – under this approach, HIV testing is performed routinely for all pregnant women in Alberta seeking prenatal care unless they specifically choose not to be tested.

PCR – Polymerase chain reaction

PLPH – Provincial Laboratory for Public Health

Rapid HIV testing - A HIV test which can provide a preliminary HIV serostatus result in less than 30 minutes.

STAT HIV testing - Tests that are processed as priority, providing faster results than standard HIV testing.

STI – Sexually transmitted infections

Viral load – HIV RNA level – measure of circulating HIV RNA and measure of infectivity. Undetectable viral load refers to a HIV RNA level that is below the level of detection of the available test.

Appendix F: Contacts

Sources for expert advice and consultation on HIV:

ADULT

CALGARY:

- Southern Alberta Clinic for HIV/AIDS (403-955-6399)– business hours only
- Peter Lougheed Hospital (403-943-4555) – Adult Infectious Disease specialist on call

EDMONTON:

- University of Alberta Hospital (780-407-8822) – Adult Infectious Disease specialist on call
- Royal Alexandra Hospital (780-735-4111) – Adult Infectious Disease specialist on call
- Capital Health STD Centre (780-413-5156) – business hours only
- Dr. B. Romanowski (780-436-4900) – business hours only

PEDIATRIC

CALGARY:

- Alberta Children's Hospital (403-955-7211) – Pediatric Infectious Disease specialist on call

EDMONTON:

- University of Alberta Hospital (780-492-8822) – Pediatric Infectious Disease specialist on call

PROVINCIAL LAB FOR PUBLIC HEALTH

- Edmonton: Virologist on call (780-407-7121)
- Calgary: Virologist on call (403-944-1200)

HIV DESIGNATE PHARMACIES

- Southern Alberta Clinic pharmacy (403-955-6399)
- Rexall outpatient pharmacy University Hospital site (Edmonton) (780-407-6990)
- Rexall outpatient pharmacy Royal Alexandra Hospital site (Edmonton) (780-735-5296)

FIRST NATIONS AND INUIT HEALTH

- Karen Saganiuk RN BScN (Blood Borne Pathogens/Sexually Transmitted Infections Prevention Program Coordinator Health Canada) Tel: (780-495-6074) Fax: (780-495-8070)
  Email: Karen_Saganiuk@hc-sc.gc.ca