MATUREITY & NEONATAL UNIT
GUIDELINE:

THE MANAGEMENT OF PREGNANT AND LABOURING WOMEN WITH HIV INFECTION & THE CARE OF THE NEONATE

SCOPE:
This guideline encompasses Hauora Tairāwhiti obstetricians, core midwives, midwife Lead Maternity Carers (LMC’s), core nurses and paediatricians working in the antenatal clinic, maternity unit and neonatal unit.

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PURPOSE:
To provide HIV positive pregnant women with individualised, specialist, multidisciplinary care, in order to reduce the transmission rates from mother to neonate.

DEFINITIONS:
HIV
Human Immunodeficiency Virus – HIV is a virus that damages the body’s immune system by infecting the T lymphocyte or T helper cell. The T helper cell has a protein on its cell surface called CD4 and is hence often referred to as a CD4 cell.

AIDS
Acquired Immunodeficiency Syndrome - A late consequence of HIV infection due to unusual infections, malignancy and/or general decline in health.

ART
Antiretroviral Therapy – the drugs used to treat HIV.

OI’s
Opportunistic Infections that cause serious illnesses in people with low CD4 counts.

BACKGROUND:
It is estimated that if women with HIV infection are identified during pregnancy and use a combination of interventions the risk of HIV perinatal transmission can be reduced from 30% to less than 1%. These interventions include: early engagement in antenatal care, maternal ART treatment during pregnancy, consideration of mode of delivery, neonatal ART prophylaxis and avoidance of breastfeeding.
All women in the Tairāwhiti district must be offered routine antenatal screening for HIV status along with the other standard antenatal screening tests at time of antenatal booking. These screening tests are ‘opt out’ - not ‘opt in’ tests. If the woman ‘opts out’ of any of the screening tests, this must be clearly stated on the request form.

A small percentage of women will present unbooked and in labour, without having been offered antenatal HIV screening. Because most cases of perinatal transmission occur during labour it is important that staff members involved in a woman’s care offer an HIV test as soon as possible in labour.

**Women identified through Antenatal Screening**

If a HIV screening result is REACTIVE, TLab will phone the requester informing them of the result and request a confirmatory further blood sample. Prior to informing the woman of the initial result and taking another blood sample, the requester is advised to contact:

**Primary Contact:**

Hawkes’ Bay Infectious Diseases Physician: Dr Andrew Burns
Ph: 06 878 8109 (Hospital switch who can locate Andrew)

**OR**

**Secondary Contact: (if Dr Burns unavailable)**

On-call Infectious Diseases Physician, Waikato Hospital.
Ph: 07 8398899 (Hospital switch who can locate the on call physician)

**AND**

The Obstetrician caring for the woman.

**Note:** The result will not be available electronically until the confirmatory result of the second blood test is available.

- Upon notification from TLab that there is a *confirmed* positive result, contact the HIV specialist above for advice and inform the woman of her HIV status.
- Positive results should be given in person and not over the phone.
- Women may need access to support services following diagnosis. Hawkes Bay HIV clinic nurse Sally Berry RN (06-8788109 - Ext 6662) can be contacted for assistance. Also, “Positive Women” are an excellent further source of support (Freephone 0800 POZITIV, 09 309 1858).
Antenatal Care

- An agreed management plan must be clearly documented in the woman’s MCIS record—see Appendix 1 for a form which can be used and scanned in or included in the management plan.
- Blood test for HIV resistance, CD4 count and Viral Load (NB: blood test needs to be performed early in the week—not on a Friday)
- Early ultrasound to ensure EDD is accurate.
- Referral to the Hawkes’ Bay HIV specialist.
- Women already taking successful ART (suppressed viral load) are generally recommended to continue the same regimen throughout the pregnancy.
- For those not already on ART this is usually initiated by approx. 16-20 weeks
- The aim of maternal ART is to reduce the viral load to as low as possible (preferably to undetectable level i.e. <50 copies) at the time of delivery.
- 4 weekly monitoring of Viral Load until virus suppressed then again at 36 weeks.
- Discussion of delivery method.
- Notify the hospital pharmacy before 34 weeks to ensure there is supply of AZT syrup (for the neonate) and — if appropriate— intrapartum IV AZT for mother (See Intrapartum Care below)

Intrapartum Care

- Inform the on call obstetrician and paediatrician of admission.
- Elective caesarean section at 38 weeks is recommended if viral load is unknown or >1000 copies/ml near time of delivery.
- For women with viral load ≤ 1000 copies/ml, caesarean section for standard obstetrical indications can be scheduled for 39 weeks.
- Maternal ART should be continued on schedule as much as possible during labour or before / after caesarean section.
- Maternal IV Zidovudine (AZT) is used at time of birth if maternal HIV viral load is > 1000 copies/ml near time of birth. If having a LSCS then 3 hours prior to the caesarean section the woman should receive AZT 2mg/kg over 1 hour, followed by 1mg/kg/hr continuously until neonate delivered and cord clamped.
- The following should be generally avoided unless there are clear obstetric indications:
  - AROM
  - Routine use of scalp electrodes
  - Operative delivery with forceps / ventouse or episiotomy

Ordering, Preparing and Storing Peripartum Maternal Art

Note: This is only recommended for those women who have a viral load over 1000 copies/ml close to time of delivery. It is essential that ANC midwife/secondary care midwife/obstetric team liaise with the Pharmacist to ensure that the drugs are ordered and available for labour from 34 weeks.
Preparation/Storage
- **Zidovudine IV** 600mg = (60ml) into 240ml dextrose 5% which gives 2mg per ml.
- The diluted solution should be stored at 2 – 8°C for no more than 24 hours

Dose (to start 3 hrs before planned c/s):
Loading: - 2mg/kg IV Zidovudine over one hour, then:
Maintenance: - 1mg/kg/hour by continuous IV infusion until cord clamped

Late Bookers/Unbooked Mothers presenting in Labour
An Expedited HIV test must be performed and if this is positive maternal AZT infusion must be instituted and infant given AZT prophylaxis, pending confirmation of maternal HIV result.

Postnatal Care – Maternal
- Routine postnatal care of mother using Standard Precautions.
- The woman’s discharge from hospital should be pre-planned in discussion with the LMC, paediatrician, obstetric team and the woman’s HIV specialist.
- **Breastfeeding in NZ is contraindicated**
- A decision regarding the continuation of maternal antepartum ART must be made in discussion with the HIV specialist.

MANAGEMENT OF THE FETUS/NEONATE EXPOSED TO HIV - ANTENATAL, DELIVERY AND POSTNATAL CARE

Antenatal
The paediatric team needs to be informed in writing when an HIV-infected woman is pregnant. The team should also be advised when the woman is admitted for LSCS, in labour or any antenatal admissions.

Delivery
- **The baby should be bathed as soon as possible** to remove maternal blood and secretions.
  Standard Precautions should be followed which includes the midwife or whanau member using gloves for the bath.
- **DO NOT** administer IM Vitamin K until after the baby has been bathed
- If mother is HepBs Ag +ve, give HIBG and H-B VAX II (5ug) vaccine after the first bath.

Postnatal
- The infant should be managed on the postnatal ward unless there are other indications for admission to Neonatal Unit
- The infant remains under the care of the Paediatric Team
- **Breastfeeding is contra-indicated.**
- **BCG immunisation must not be given** in the immediate postpartum period.
Antiretroviral Therapy (ART)

- All neonates born to HIV infected mother should receive AZT syrup which should start as soon as practical between 6-12 hours of delivery.
- The dose of ZIDOVUDINE (AZT) for a full-term infant is 4mg/kg/dose BD. The dose for a preterm infant < 35weeks is 2mg/kg/dose BD.
- Contact Health Benefits Centre to obtain a Special Authority Number. They require a code - this is a 4-letter, 6-number code comprising:
  o 1st two letters of the surname
  o 1st letter of first name (‘B’ if baby is unnamed)
  o Sex (M or F)
  o Followed by the 6-figure date of birth
- Duration of infant ART is usually 6 weeks. A 4 week regimen can be considered for full-term infants if mother has received ART pre-partum with consistent viral suppression.

Follow-up

- The paediatric consultant of the neonate will determine when follow-up is required.
- A baseline FBC soon after birth is performed and repeated at time of virologic tests, monitoring for AZT toxicity.
- Nucleic Acid Amplification Testing is required to monitor the infant for HIV infection, and should be performed at approximately 2-3 weeks, 2 months and 4-6 months of age.
- Expert advice on the management of HIV in children may be sought from Starship Hospital Paediatric HIV specialists.

DISCLAIMER:

International & national recommendations are updated on a regular basis. It is essential the team responsible for each individual woman and baby discusses and agrees specific, planned care.

REFERENCES:

- Positive Women (undated) HIV, pregnancy and women’s health.
- Positive Women (undated) Wahine Kaha
- Positive Women provides information and peer support for people living with HIV and AIDS – phone (09) 309 1858 weekdays 9 – 5pm. Email: positivewomen@xtra.co.nz

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APPENDIX 1:

BIRTH PLAN FOR WOMEN WITH HIV

Name ______________________________________________________               NHI __________________

OR ID LABEL

DOB____________________

Current Medication:

Drug ______________________________________________________               Dose ______________________________

Drug ______________________________________________________               Dose ______________________________

Drug ______________________________________________________               Dose ______________________________

Drug ______________________________________________________               Dose ______________________________

Drug ______________________________________________________               Dose ______________________________

Drug ______________________________________________________               Dose ______________________________

Therapy to be continued / discontinued post-delivery (please cross out as applicable)

I will have my medication with me on admission and will self-medicate

On admission, please inform the consultant obstetrician and paediatrician

The mode of delivery (tick as appropriate):

☐ Vaginal birth

☐ An elective caesarean section (LSCS) has been booked for: ______________________________

☐ My virus level is over 1000copies/ml so I have agreed to receive Zidovudine (AZT) intravenously at the time of undergoing caesarean section.

☐ I have agreed for my baby to take Zidovudine (AZT) syrup for 6 weeks.
Treatment regime (to be used if HIV viral load > 1000 copies/ml close to time of delivery)

- Administration of IV Zidovudine to be initiated 3 hours prior to delivery
- Loading dose should be 2mg/kg for 1 hour, followed by 1mg/kg for maintenance until the cord is clamped and cut
- Add 600mg Zidovudine = 60ml to 240ml dextrose 5% which gives 300ml. Solution is therefore 2mg per ml.

Woman’s weight ___________________________ Date ___________________________

The loading dose for the mother is ________ ml/hour;

and the maintenance dose is ____________ ml/hour

Additional information
Partner/family/friends may be present at the birth and are aware/unaware of infection.
__________________________________________________________________________
__________________________________________________________________________

Therapy for baby
I have discussed the reasons for not breastfeeding with my Lead Maternity Carer and understand why this is contraindicated  Yes  No (please circle)

I will bring in equipment and formula milk to feed my baby.  Yes  No (please circle)

My baby will receive:
Drug: __________________________ Dose: __________________________

Neonates should begin treatment with Zidovudine (AZT) syrup at 4mg/kg BD orally, ideally within 6-12 hours after birth. This will continue for a total of 6 weeks.
- My LMC/GP/Plunket nurse is aware/unaware of my infection
- Please do/do not document this on my discharge summary
- The health professionals working with me during the pregnancy are:

Hawkes’ Bay HIV Service – Phone: 06-8788108
Sally Berry, Nurse - Ext 6662
Dr Andrew Burns - Pager 3229

Positive Women - Phone: 0800 POZITIV (09 309 1858) or positivewomen@xtra.co.nz