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## HIV Management in Obstetrics - Antenatal, Intrapartum and Postpartum Policy

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## Section A

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### **Purpose**

Pregnant women with Human Immunodeficiency Virus (HIV) require individualised and multidisciplinary specialist care. This information is to guide practitioners on the management and care of HIV positive women and babies.

### **Scope**

All medical, nursing and midwifery staff employed by Women's and Children's Services, and all practitioners holding an Access Agreement.

### **Related Documents**

- Doc No. A 025: Administration: Documentation requirements for Booking Women at HVDHB.
- Policy ICB1: Blood and Body Fluid Exposure
- ICS4: Recommended Practices for Standard Precautions and Transmission-based Precautions
- Care of Hepatitis B Positive Mothers and their Babies
- G12: Informed Consent Policy
- G14: Interpreters
- ICN2: Notification Process for Notifiable Diseases and other Conditions
- Code of Health & Disability Services Consumer Rights 2004
- National Screening Unit HIV testing in Pregnancy
- National Screening Unit 2008. "Guidelines for Maternity Providers offering Antenatal HIV screening in New Zealand"
- National Screening Unit 2008. "Universal Offer Antenatal HIV Screening Programme Standards Policy and Quality".

### **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 approx 31% to less than 1-2%. These interventions include: antenatal care, maternal antiretroviral treatment in pregnancy and labour, consideration of mode of delivery, antiretroviral treatment for neonates and avoidance of breastfeeding.

A small percentage of women will present un-booked, in labour, without having been offered HIV screening in pregnancy. It is important that staff involved in a woman's care routinely offer an HIV test either during labour, as appropriate, or soon after delivery.

Most cases of perinatal transmission occur during labour. Therefore there are benefits from offering treatment to a woman with a suspected or confirmed HIV infection during labour. All pregnant women diagnosed with HIV infection, or suspected HIV infection will be offered interventions to treat their disease, and prevent vertical transmission.

### **Infection Control**

Standard precautions - refer to recommended practices for Standard Precautions and Transmission-based Precautions (ICS4), the Blood and Body Fluid Exposure (ICB1) in the Infection Control Policy Manual, Also Care of Hepatitis B Positive Mothers and their Babies. No isolation is necessary except if the woman has uncontrolled external bleeding, where a room with individual bathroom facilities may be preferable.

### **Confidentiality**

All patient information should be kept confidential. Reassurance of confidentiality is extremely important and should be considered at all times during care e.g.

HIV positive **should NOT** be documented on the outside of clinical notes

HIV positive **does NOT** need to be highlighted on routine test requests

HIV positive **does NOT** need to be written on the white board in Delivery Suite

Staff should take extra care to ensure that a woman's HIV status is not written on ward lists as printed copies may be left lying around.

**Women may have family and friends who are involved during the pregnancy but who are not aware of the HIV diagnosis. Staff should be careful around disclosure at all times. For some women, aspects of care will vary and be outside the expected norm, such as breast feeding or requiring a caesarean section. Women may feel better if given options to explain these aspects. For example having a LCSC due to obstetric complications, or not being able to breast feed their baby due to insufficient milk or mastitis. It is our role as health professionals to support women's privacy.**

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## Section B – Antenatal Screening

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An HIV antibody test should be offered, and recommended to all pregnant women, ideally as part of their first antenatal booking bloods. Women who have a known HIV infection do not require screening, and should already be under the IDT.

The woman must be provided with adequate information to make an informed choice. The Lead Maternity Carer (LMC) should discuss the risks and benefits of having an antenatal HIV screen, and the expectations of ongoing management. Supporting written information should be provided, and the National Screening Unit, in conjunction with Everybody New Zealand, has printed information sheets on all first antenatal bloods, incorporating HIV. These can be obtained from the Antenatal HIV Co-ordinator.

Women who have difficulty understanding English may need interpreters. For privacy do not use family members as interpreters.

Women who are non eligible for health care may decline the test based on affordability. They should be informed that the cost of their antenatal and delivery care is publically funded. The care of their baby to prevent perinatal transmission will also be provided.

On the Laboratory order form, antenatal HIV sits directly below the request for first antenatal bloods and is a separate tick box. In order to request the antenatal HIV screen the LMC, or requesting practitioner, must clearly tick both boxes.

There should be clear documentation in the woman's notes that the test has been offered, accepted or declined, but written consent is not required.

If a woman declines the Antenatal HIV screen with her first antenatal bloods, she may at any time throughout the pregnancy have the test, **but it must be associated with an antenatal blood test**. In this circumstance either, order a repeat first antenatal blood series with the Antenatal HIV screen, or a subsequent antenatal blood series with the Antenatal HIV screen. This ensures it is identified for the screening programme as an HIV screen in pregnancy.

Women that present late in pregnancy also have the option to be tested, including late presentation in labour. (See Unbooked Women – section E).

Women that are considering a termination of pregnancy should also be offered HIV Screening.

HVDHB staff and associated access agreement holders will undertake Universal Offer of Antenatal HIV Screening as recommended practice. Using the "Guidelines for Maternity Providers Offering Antenatal HIV Screening in NZ, Feb 2008" from National Screening Unit as the leading document, with this and associated DHB policies.

If the HIV EIA blood test is not reactive, it is reported as negative.

If the HIV EIA blood test is repeatedly reactive, the requesting Health Practitioner will receive notification from a member of the Infectious Disease Team or Clinical Microbiologist, with ongoing advice and support. The woman will then need to have a second blood sample taken for confirmatory testing (viral load/PCR). This will be requested by the LMC. **It needs to be clearly documented on the laboratory request that this is a second sample for confirmatory testing in the comments box.**

The “Guidelines for Maternity Providers Offering Antenatal HIV Screening in NZ, Feb 2008” clearly outlines the above process and the giving of results, and expected follow up.

All positive results must be given in person. Do not give on a Friday or before a public holiday. Most women will require access to support services. Support is available from the HIV Clinical Nurse Specialist, page via CCDHB operator.

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## Section C – Antenatal Management of Women with Confirmed HIV Infection

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### Known HIV positive women from the Hutt Valley must be referred to:

1. The Infectious Disease Team at Capital & Coast DHB (CCDHB). They are likely to already know about these women, but formal referral is required to ensure a patient does not get missed. (Please fax your referral to the Clinical Nurse Specialist HIV, (04) 385 5428 and phone (04) 918 6915, or 027 444 1967
2. The High Risk Obstetric Team at CCDHB (please fax your referral to (04) 806 0762, and phone on (04) 806 0774 to let them know about the referral.

Early referral to this service is necessary to ensure that HIV positive women received appropriate advice about those interventions which are known to reduce the risk of mother-to-child transmission.

***These women will be booked to deliver at CCDHB***, but may, by negotiation continue to have an LMC in the Hutt Valley for routine antenatal checks and postnatal care.

Delivery will be at CCDHB for several reasons:

- Access to the Infectious Diseases Team. CCDHB Infectious Diseases Team is the regional provider of the HIV Service, and as such covers Hutt Valley DHB patients
- CCDHB Pharmacy have available the range of medications that may be required for HIV positive women and their babies
- Access to the CCDHB Lead Paediatric Specialist, who will follow these babies through as required

**The Infectious Diseases Team (IDT)** is likely to be aware of any Reactive HIV EIA results. It is still the responsibility of the LMC to follow these through to a negative or confirmed positive result. Once there is a positive result the IDT will continue the management from an infectious diseases viewpoint i.e. Medication, counseling, contact tracing, and support from the Clinical Nurse Specialist. Treatment will be on an individual basis.

The HIV Clinical Nurse Specialist will facilitate a multi-disciplinary meeting with the High Risk Obstetric Clinic, the Infectious Diseases Physician, and the Lead Paediatric Specialist at approximately 32-34 weeks gestation to put a birth/management plan in place.

**The High Risk Obstetric Team** will manage obstetric care and birth planning. Although the risks of transmission are uncertain, invasive diagnostic tests are not advisable, the women should be given ample time to have her questions answered,

therefore referrals for women considering **amniocentesis, chorionic villous sampling** should be sent as early as possible.

Pregnant women infected with HIV are to be managed by a team including:

- CCDHB Infectious Diseases Team
- CCDHB HIV Clinical Nurse Specialist
- CCDHB High Risk Obstetric Team
- Midwife
- Paediatrician
- Counselor
- Social Worker (if needed), and any other voluntary groups as appropriate.

Women should be offered an opportunity to meet the Neonatal Pediatrician (currently Dr Dawn Elder or Dr Helen Millar), during their pregnancy. It may be appropriate for this meeting to be held in conjunction with the 32 week MDT meeting, where issues related to the risk of mother-to-child transmission will be discussed and a management plan developed for the newborn. A copy of the plan for the newborn will be circulated to the neonatal team by the Pediatricians' involved in this consultation so that all team members are aware of the plan prior to admission.

### **General Information on Anti-Retroviral (ARVs) Medications in Pregnancy**

- Treatment options are based on individuals needs
- Often triple combination
- ARVs should be taken daily without any missed doses to avoid viral resistance development. Thus if there are significant problems with vomiting eg. **Hyperemesis gravidarum**, the HIV team need to be aware of this – in some instances, a controlled treatment withdrawal may be recommended to avoid what effectively becomes intermittent dosing
- Side effects of ARVs may be nausea or abdominal upset also:
  - Nevirapine: rash and liver function abnormalities, rarely acute hepatitis
  - Zidovudine: anaemia and rash, macrocytosis
  - Protease inhibitors: glucose intolerance and diabetes
- Pre-eclampsia and side effects from ARVs may overlap: with similar symptoms and abnormal LFTs, Symptoms of toxicity can mimic the symptoms of pre-clampsia or cholestasis.
- Women not receiving antiretroviral therapy prior to the pregnancy should start therapy in the second trimester; usually triple ARV therapy with the aim of achieving an undetectable HIV viral load by term
- Women started on ARVs during pregnancy may have their medications stopped post-partum (short term ARV), depending on maternal health.

Treatment will vary from woman to woman. In general, she may be given oral ARV therapy during pregnancy and intravenous therapy during labour and birth or prior to caesarean section. Commencement of treatment will be based on individual requirements.

**Co-infections:** as part of care following diagnosis, further screening will check for other infections, such as Group B Strep, hepatitis B and C, and other sexually transmitted infections. Co-infections need careful management for both mother and the baby.

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## Section D – Management of Women in Labour with known HIV Infection

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### a. If woman is stable

- Inform Consultant Obstetrician
- Arrange for transfer to CCDHB, as woman should be 'booked' to deliver there.

### b. If not Suitable for Transfer (i.e. impending delivery, or unstable mother/baby)

- Inform Consultant Obstetrician
- Consultant Obstetrician to:
  - Inform Infectious Diseases Team, CCDHB, via page on 385 5999
  - Inform Paediatrics at CCDHB – Dawn Elder or Helen Milar
  - Inform Paediatrics, at HVDHB
  - Call Delivery Suite, CCDHB for Booking Notes, Bloods and Birth Management Plan, this should have been put in place by 32-34 weeks.
- Use normal universal precautions
- Medications:
  - Hopefully the woman will have brought in her own oral ARVs, which she should continue to take as prescribed, unless changes are made by the Infectious Diseases Team.
  - **HVDHB pharmacy does not keep ARVs.** As soon as medications are prescribed by the Infectious Diseases Team, contact either our pharmacy between the hours of 8am to 5pm, or the After Hours Management Team. **See Appendix One - Access to ARV Medications.**

### Intrapartum

Mode of delivery: In the past, the principal obstetric risk factors for mother-to-child transmission were vaginal delivery, duration of membrane rupture, and pre-term deliver. Thus, elective LSCS was generally recommended. However, vaginal delivery can now be considered for women who are on effective treatment and have an undetectable viral load. The decision about type of birth will be made in consultation with the woman, the Obstetrician and the IDT. The woman may chose to have an Elective LSCS and this should be a discussion between her, the Obstetrician and the Infectious Diseases Team. Water births should be avoided in the interests of safety for both staff and the baby.

If the woman labours, fetal scalp electrodes, fetal blood sampling, instrumental delivery, and artificial rupture of members, should be avoided if possible, due to the increase risk of vertical transmission. If obstetric intervention is indicated for clear reasons such as fetal distress, this should proceed in the usual way.

HIV infection is not an indication for continuous electronic fetal monitoring.

Labour should be augmented promptly following the spontaneous rupture of membranes. Vertical transmission rates can increase with the length of time that membranes are ruptured. However, women with fully suppressed viral loads are less likely to be at risk of transmission.

If a Zidovudine infusion is required, it should be started at the onset of labour and continued until the umbilical cord is clamped. The Zidovudine administration protocol is in the *Notes on Injectable Drugs*. A current weight should be taken for correct dosage of Zidovudine.

No form of analgesia is generally contraindicated.

Active management of the third stage is recommended as best practice. It is recommended that the cord be clamped as soon as the baby is delivered.

## **Post Partum**

### **Breastfeeding**

- Breastfeeding is not recommended for HIV positive women and their infants; this is consistent with the World Health Organization Guidelines (2004).
- If the woman decides to breastfeed they should be advised to breast feed exclusively i.e. not to supplement with artificial milks or other drinks and she must be made aware that the baby continues to be exposed to the risk of mother-to-child transmission during breastfeeding.
- Mothers need to be given skilled help with positioning and attachment to avoid cracked nipples and mastitis that may increase the risk of transmission.
- The longer the duration of breastfeeding, the greater the risk of transmission. Breastfeeding should be discontinued as soon as feasible and certainly not for more than 6 months.

Extra postnatal stay may be required for support with artificial feeding and teaching parents administration of newborn ARVs

Consider lactation suppression for the mother's comfort.

Unless the baby is ill, there is no reason for him/her to be routinely admitted to SCBU. Every effort should be made to keep mother and baby together. Standard precautions for blood and body fluids should be used.

## **Discharge Home**

On discharge the following people should be notified

- Midwife responsible for post natal care
- HIV Clinical Nurse Specialist
- Neonatal Paediatrician
- GP – they will have ongoing responsibility for both the women and the baby in the community.

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## Section E – Unbooked Women

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This is defined as any women, not booked to deliver at our facility, and/or has had no antenatal care during current pregnancy.

- Obtain accurate information from the woman – has she had any antenatal care in another DHB/with another LMC
- Has she had antenatal care eg. Planning a homebirth but not booked in hospital to deliver.

Women, who present un-booked in labour or required urgent delivery should where possible, be offered an HIV screening test in labour if there is an opportunity to obtain informed consent. If it is not possible or appropriate to obtain informed consent prior to the birth, an offer should be made for testing shortly after the baby is born.

The objective of offering HIV testing is to reduce the likelihood of transmission of HIV from an HIV infected mother to her baby before, during or after birth.

- It is important to follow the **informed consent** process.
- The woman should be given the *Everybody* tear off sheet “First Antenatal Bloods” containing **information on all the blood tests available**.
- The midwife or doctor should discuss the basic information and answer any question
- Interpreters should be used if required.
- Written consent is not required, but document **verbal consent** given
- Order as **Urgent** tests, ring the laboratory to inform them of urgency.
- No extra blood tubes are required by the lab in order to process the HIV component (you will still need 1 x purple for FBC, 1 x red for G&H, 1 x yellow for Hep B, Rubella, Syphilis)

HVDHB Laboratory can perform Urgent HIV EIAs.

### **Reactive HIV EIA Result – There are two possible outcomes:**

#### **Low Level Reactive HIV EIA:**

- Likely to be false positive – unlikely woman is infected with HIV; however additional testing will be required.
- Requester should inform Obstetrician of the low level reactive HIV EIA result. Discussion between Obstetrician and Infectious Disease Physician.
- Treatment very unlikely to be offered unless particularly high risk, dependent on individual clinical scenario. Specialist to ask the women about any

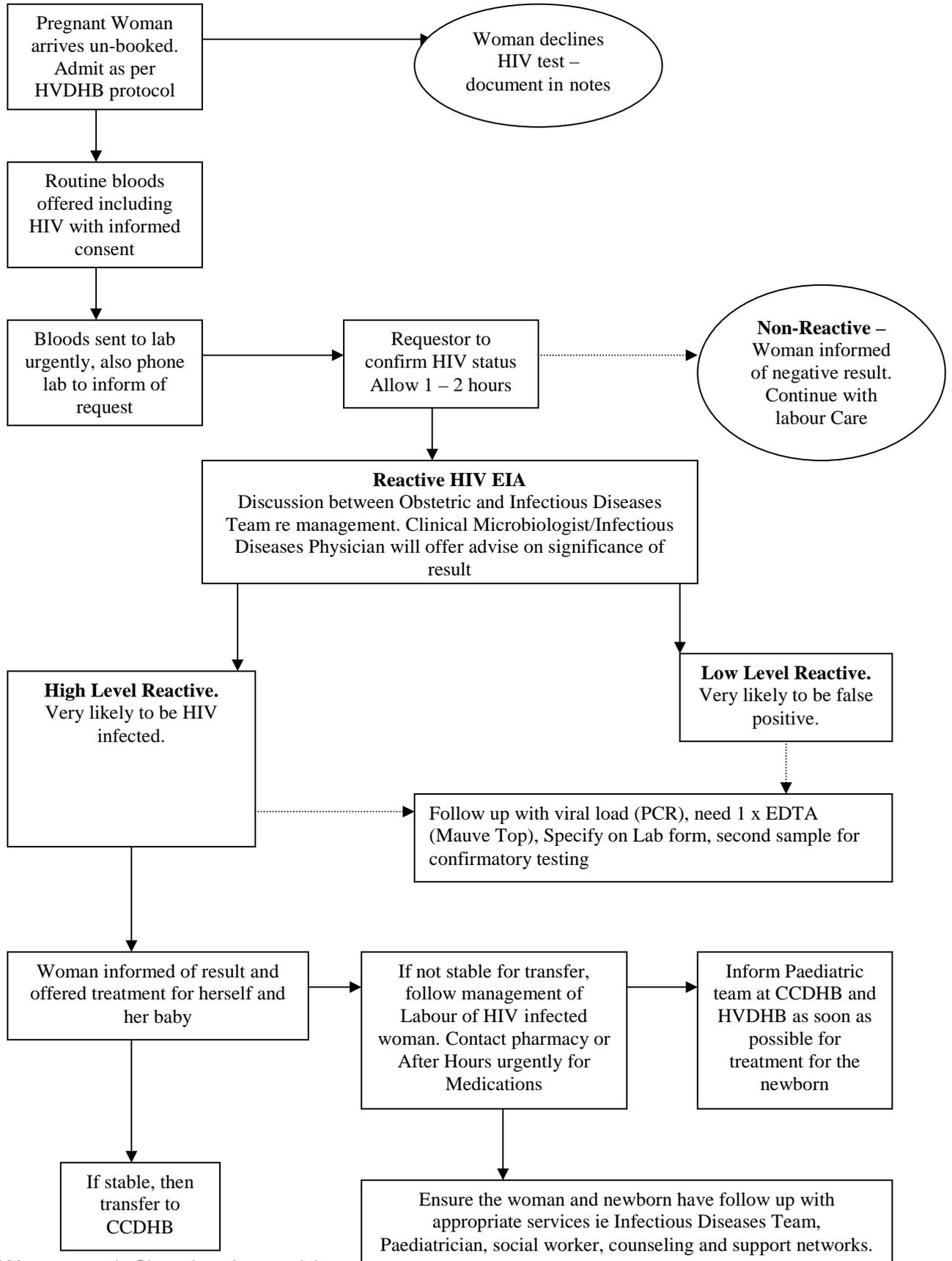
concerns she may have about recent exposure to HIV in the last 2-4 weeks (window period).

**High Level Reactive HIV EIA:**

- Very likely to be true positive result and will be confirmed HIV positive on confirmatory testing.
- Specialists will discuss and decide management plan based on the advice from the Pathologist/Infectious Disease Physician.
- Woman to be informed by Infectious Disease Physician or Obstetrician of possible HIV status, and recommended management, treatment and follow up for herself and her baby.
- With woman's consent, bloods to be taken and sent for confirmatory testing either during labour, if time or after delivery. Please note that results from viral load are likely to take 5 – 7 working days. This will need to be communicated to the woman. It is likely the woman will be discharged prior to the viral load result being available. The Infectious Disease Physician should arrange a follow up appointment for the woman to convey the viral load results.

See the flow chart on next page for management guidelines of Unbooked Women in Labour with Reactive HIV EIA.

## Flow Chart Unbooked Women in Labour with Reactive HIV EIA



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## Section F – Neonatal Care

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- Routinely these babies will be born at CCDHB.
- In the event of an un-booked women presenting in labour or a known HIV positive patient who is not stable to transfer: please notify Dawn Elder, or Helen Milar, Neonatologists at CCDHB as soon as possible for newborn management plan.
- These babies will come under the care of the Pediatricians at **CCDHB** for up to at least 18 months, who along side the Infectious Diseases Team will manage medications and ongoing care.
- Any ARV infusions received by the Mother in Labour should **continue until the cord is clamped**.
- **The baby should be examined shortly after birth, in particular baby's head circumference should be recorded and the presence of hepatosplenomegaly or lymphadenopathy noted.**
- **The Baby should be handled by staff wearing gloves until after s/he has been bathed immediately following birth,** and prior to receiving any invasive procedures i.e. Vitamin K, venepuncture, iv cannula
- **A Complete Blood Count (CBC) should be taken** from cord blood, (anaemia is the primary concern), and **viral load testing should be performed within 24 – 72 hours of birth** (this can be done on a peripheral blood sample). The Paediatric Team and IDT will request follow up bloods as required. The blood tests look for HIV antibodies and try to detect the virus in the blood with a PCR test. The antibody test will usually be positive from placental transfer of maternal HIV antibodies. Maternal antibodies may persist for up to 18 months occasionally longer. The PCR test will be negative if the baby is not infected.
- **Oral ZDV should be started as soon as possible after birth, preferable within 6 – 12 hours,** and will continue for up to 6 weeks from birth, and should be prescribed by the Lead Paediatrician,
- **Breast-feeding** – see Post Partum Care. Breastfeeding is not recommended for HIV positive women and their infants
- **No BCG** until final HIV status is known. The Infectious Disease Team Clinical Nurse Specialist will inform when/if baby can have.
- **Hepatitis B prophylaxis** is not contraindicated.
- Unless there is another reason the infant does not need to be admitted to the Neonatal Unit/SCBU
- Initiate Skin-to-Skin as soon as practical.

The baby must be commenced on prophylactic antiretroviral therapy: in most circumstances this will be – **Zidovudine 4mg/kg orally bd**. This is to start as soon as possible after delivery and ideally within 4-6 hours of birth, and in the “HIV Drug KIT” available at CCDHB. This will continue for 4-6 weeks.

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## **Appendix 1 - Access to ARV Medications**

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HVDHB pharmacy does not keep a supply of ARV medications.

Hopefully known HIV positive women will bring in their own ARV medications. She should continue to take prescribed medications, unless the Infectious Diseases Team makes changes.

The remaining medications for Labour and the Neonate will need to be obtained from CCDHB.

**Between 8am and 5pm** contact HVDHB Pharmacy as soon as possible. They will source and supply the medications from CCDHB, which will take time. Extension 8532, with Drug Chart.

**After 5pm** contact the HVDHB after Hours Manager as soon as possible. They will have to get medications from CCDHB Delivery Suite Clinical Coordinator.

The CCDHB HIV kit is stored in Delivery Suite in Pyxis under "HIV Kit".

The kit contains; Lamivudine oral solution, nevirapine suspension, zidovudine injection, and zidovudine oral solution.

In addition the CCDHB after Hours cupboard stocks the following anti-retrovirals; Lamivudine 150mg tablets, Combivir tablets, nevirapine tablets, and zidovudine capsules.

**Zidovudine administration details are in the Injectable Drug Manual.**

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## Sources of Information and Support

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- [www.nsu.govt.nz](http://www.nsu.govt.nz)
- [www.moh.govt.nz](http://www.moh.govt.nz)
- [www.moh.govt.nz/aids](http://www.moh.govt.nz/aids)
- [www.moh.govt.nz/eligibility](http://www.moh.govt.nz/eligibility)
- [www.who.int/hiv/pub/guidelines/pmtctguidelines3.pdf](http://www.who.int/hiv/pub/guidelines/pmtctguidelines3.pdf)
- “Guidelines for Maternity Providers offering antenatal HIV screening in New Zealand”. Feb 2008. Can be downloaded online from National Screening Unit
- [www.nsu.govt.nz/Health-Professionals/2544.asp](http://www.nsu.govt.nz/Health-Professionals/2544.asp)
- “Guidelines for Maternity Providers Offering Antenatal HIV Screening in New Zealand – Summary” (Laminated sheet). From HIV Coordinator
- “HIV testing in Pregnancy – Part of Antenatal Blood Tests” by the National Screening Unit. Can be obtained online in several languages (Tongan, Swahili, Samoan, Maori, Korean, Hindi, Traditional Chinese, Simplified Chinese). [www.nsu.govt.nz/Current-NSU-Programmes/1319.asp](http://www.nsu.govt.nz/Current-NSU-Programmes/1319.asp) other orders through Laurina in the Health Information Centre at Hutt Hospital Foyer.
- “Everybody Information’ Sheet – 2008/09 edition – Antenatal Blood Tests. From HIV Coordinator
- “HIV. Pregnancy and Women’s Health”. From Positive Women Inc. [www.positivewomen.co.nz](http://www.positivewomen.co.nz)
- Positive Women. Free phone 0800POZTIV (0800 769 848) [www.positivewomen.co.nz](http://www.positivewomen.co.nz) Mon-Fri
- New Zealand AIDS Foundation, Awhina Centre, Wellington,
  - Debbie Langley, Counselor, (04) 381 6640
  - Silipa Take, Counselor/Pacific Island health Promoter (04) 381 6640
    - AIDS hotline 24 hours 0800 802 437 [www.nzaf.org.nz](http://www.nzaf.org.nz)
    - Wellington – [contact.awhina@nzaf.org.nz](mailto:contact.awhina@nzaf.org.nz) (04) 381 6640
- Kylie Lahman, Clinical Nurse Specialist HIV/AIDS, CCDHB. (04) 918 6915, email [Kylie.Lahman@ccdhb.org.nz](mailto:Kylie.Lahman@ccdhb.org.nz). Mob 027 444 1967 (Can use mobile during day Mon-Fri, out of hours urgently only)
- INA – Maori Indigenous and South Pacific HIV/AIDS Foundation. (07) 883 9084 or 027 299 1535, [inaf@ihug.co.nz](mailto:inaf@ihug.co.nz) [www.ina.maori.nz](http://www.ina.maori.nz). Based in Tirau but available NZ Wide. Have started network in some regions.
- Language Line – contacts via website

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## References

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Guidelines for Maternity Providers Offering Antenatal HIV Screening in New Zealand  
<http://www.nsu.govt.nz/Health-Professionals/25454.asp>

HIV Testing in Pregnancy-part of antenatal Blood tests  
<http://www.nsu.govt.nz/Current-NSU-Programmes/1319.asp>

Translated consumer pamphlets available in 8 languages.  
<http://www.nsu.govt.nz/Current-NSU-Programmes/1319.asp>

British HIV Association and children's HIV Association guidelines for the management of HIV infection in pregnant women 2008. British HIV Association guidelines. (<http://www.bhiva.org>). Date accessed July 20<sup>th</sup> 2009.

Management of HIV in pregnancy. Royal College of Obstetricians and Gynaecologists 'guidelines,' Guideline No.39; April, 2004. Available at <http://www.rcog.org.uk/womens-health/clinical-guidance/management-hiv-pregnancy-green-top-39>. Accessed 20th July 2009

Ministry of Health. (2006). *Immunisation Handbook 2006*. Wellington: Ministry of Health.

Perinatal HIV Guidelines Working Group. Public Health Service Task Force Recommendations for Use of Antiretroviral Drugs in Pregnant HIV-Infected Women for Maternal Health and Interventions to Reduce Perinatal HIV- Transmission in the United States. April 29, 2009; pp1-90 Available at <http://aidsinfo.nih.gov/ContentFiles/PerinatalGL.pdf>. Date accessed 20<sup>th</sup> July 2009.

Auckland District Health Board. HIV- Management in Labour. (2009) National Women's Health Clinical Guideline/ Recommended Best Practice.

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