HIV Management in Labour

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Contents

1. Purpose of guideline

This guideline covers the management of labour and birth for women with confirmed HIV infection or a suspected infection based on a high level reactive HIV EIA within Auckland District Health Board (ADHB).

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2. 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: 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 unbooked, in labour, without having been offered HIV screening in pregnancy. It is important that staff members 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 should be offered interventions to treat their disease, and prevent vertical transmission.

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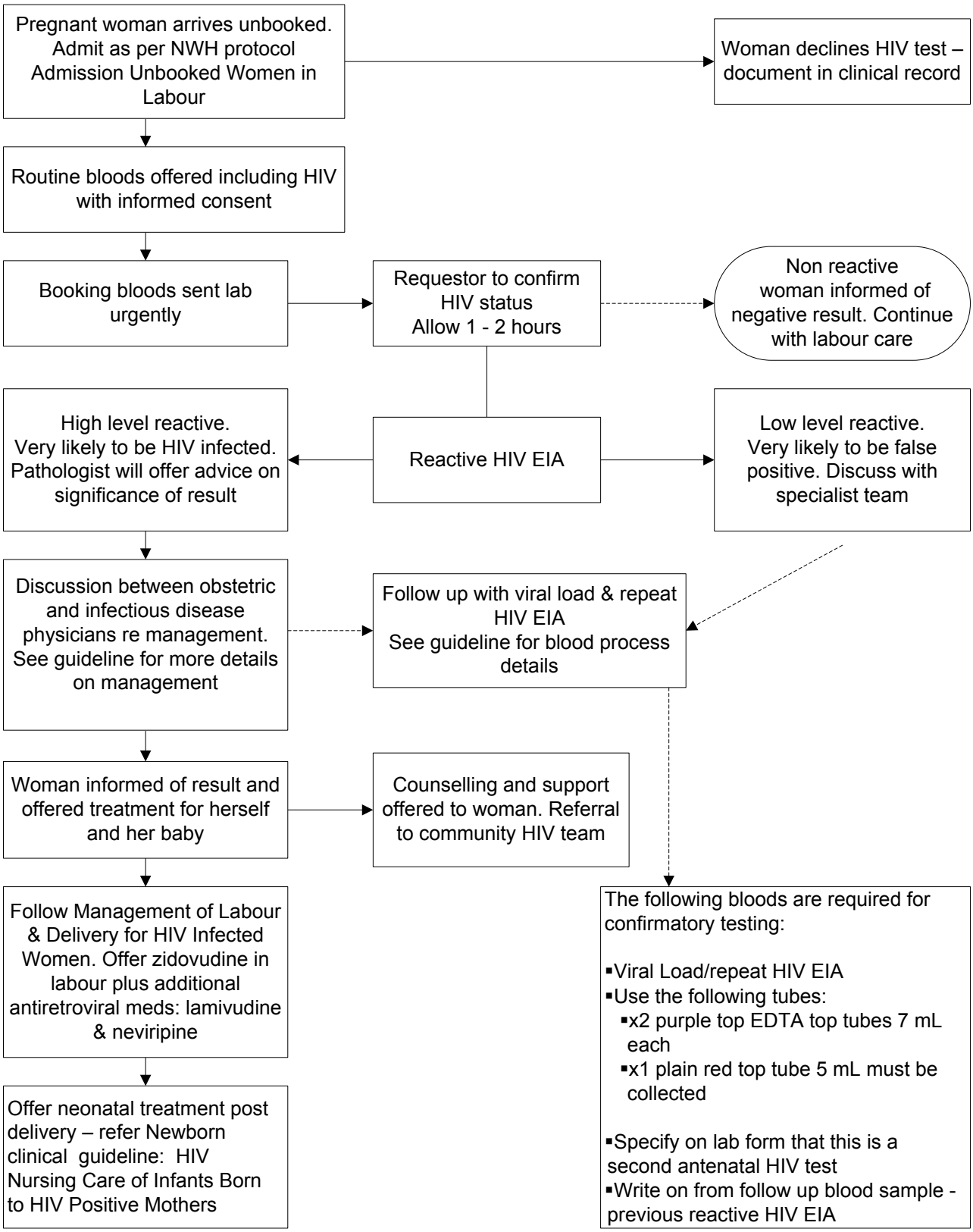
3. Unbooked women in labour with reactive HIV EIA flowchart



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4. Unbooked women in labour with reactive HIV EIA result

Reactive HIV EIA result – there are two possible outcomes:

i. Low level reactive HIV EIA

- Likely to be false positive – unlikely the woman is infected with HIV; however additional testing should be required
- The requestor should inform the obstetrician of the low level reactive HIV EIA result. Discussion between obstetrician, infectious disease (ID) physician and obstetric physician
- Treatment very unlikely to be offered unless particularly high risk, dependent on individual clinical scenario. Specialist to ask the woman about any concerns she may have about recent exposure to HIV in the last 2 - 4 weeks (window period)

ii. High level reactive HIV EIA

- Very likely to be true positive result and should be confirmed HIV positive on confirmatory testing
- Specialists should discuss and decide management plan based on the advice from the pathologist and the infectious disease physician
- Woman to be informed by the ID physician or obstetrician of possible HIV status, and recommended management, treatment and follow up for herself and her baby
- With the woman's consent, bloods to be taken and sent for confirmatory testing

Bloods for confirmatory HIV testing

Follow up bloods and results:

All reactive HIV EIA results should be followed up with additional testing to exclude or confirm HIV infection. The pathologist should advise on requirements for further confirmatory testing as listed below. Follow up bloods should be taken either during labour, if time, or after delivery.

Please note that results from viral load are likely to take 5 - 7 working days. This should be communicated to the woman. It is likely the woman will be discharged prior to the viral load result being available. The ID physician should arrange a follow up appointment for the woman to convey the viral load result.

Viral load key points:

The strongest risk factor for transmission from mother to child is maternal viral load at the time of delivery. However the viral load measure will not be available for between 5 - 7 days. For information on interpretation of viral load measure, contact the HIV physician or virologist at ACH.

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5. Unbooked women with high level reactive HIV EIA in labour

Labour and delivery management

If the woman is in established labour - offer maternal treatment to reduce perinatal HIV transmission. If the woman is not in established labour a decision on mode of delivery should involve the mother, the obstetric and the HIV physician. Consideration should be given to a caesarean delivery.

Care of women – labour and delivery

Obstetric input should be sought from the obstetric team of the day. A senior obstetrician should be involved with decisions regarding labour and delivery management. Interventions in labour should be avoided – follow guidelines for management for women with confirmed HIV infection.

Antiretroviral medications

In addition to intravenous zidovudine (as described in section six below), oral lamivudine and oral neviripine are administered in labour. These should be prescribed by the ID physician or the Obstetric Physician.

Additional oral antiretroviral to be administered in labour::

- Lamivudine dose 150 mg 12 hourly
- Nevirapine single dose 200mg orally

Lamivudine and nevirapine are not routinely stocked items in the labour and birthing suite. They may be obatined from the Inpatient Pharmacy during working hours. After hours the clinical midwifery advisor should be contacted to arrange for an emergency supply.

Post delivery

Following delivery the woman should continue taking zidovudine/lamivudine (Combivir) tablets, one tablet twice daily for one week postpartum to reduce the risk of nevirapine resistant HIV developing.

These interventions should continue until subsequent laboratory testing confirms the woman's HIV status. (Viral load likely to take 5 – 7 working days).

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6. Women with confirmed HIV infection

a) Labour and delivery management

Antenatal care

Women with HIV infection residing in the greater Auckland area should be cared for by the high risk medical team at National Women's Health located at ACH. The care and treatment of HIV infected women in pregnancy and during the postnatal period is provided by a multidisciplinary team consisting of an obstetrician, a midwife, obstetric physician and an ID physician. This team is able to provide continuity of care to a woman and her partner and family/whānau.

Women should also be provided with psychosocial support from the community HIV team and other support services such as Positive Women according to individual and family/whānau needs.

Mode of delivery

Birthing options should be discussed in full with the woman prior to labour. A decision on mode of delivery should involve the mother, the obstetrician and the physicians in a detailed assessment that takes into account obstetric history, maternal plasma viral load, future pregnancy plans, and the preferences of the mother.

Vaginal birth

Women with a fully suppressed viral load are usually able to have a vaginal birth; however this should be the decision of the obstetrician in consultation with the maternal fetal medicine (MFM) team consultant. The decision should be based on obstetric indications such as parity and previous obstetric history.

If a woman presents late in established labour, but had planned to have an elective caesarean on the basis of her HIV infection, it may be reasonable to proceed with a vaginal birth. The on call obstetrician should discuss the management of the woman with the on call MFM consultant at the time.

Elective caesarean section

Consideration should be given for an elective caesarean section birth if the viral load is not fully suppressed. Elective caesarean section has been shown to reduce the risk of perinatal transmission and should be offered at 38 weeks to pregnant women if the HIV viral load is VL > 1,000 copies/mL.

Caesarean section delivery

Caesarean delivery is associated with a greater risk of complications among women with HIV infection than observed among those women without HIV infection. An emergency caesarean poses a higher risk. However, the complications are not of sufficient severity to outweigh the potential benefit of reduced perinatal transmission. If obstetric intervention is indicated for a definite reason e.g. fetal distress, this should proceed as per policy.

The timing of caesarean section will usually be at 38 weeks to avoid labour, or as directed by MFM team (see policy RBP: Elective Caesarean Section).

In addition to the usual preparation for elective caesarean section the following steps are routine:

- Anaesthetic review on admission to ward
- Usual pre-caesarean section care and fasting period
- Oral antiretroviral medication should be given at the prescribed times – including on the morning of delivery
- Antibiotic prophylaxis at the time of caesarean section delivery is recommended for all women undergoing caesarean section, a narrow spectrum antibiotic such as cefazolin is appropriate

Intrapartum care

The on call obstetrician should provide obstetric care for HIV infected woman in labour. The obstetrician should discuss the management of the woman with the on-call MFM consultant at the time if there are any clinical concerns. The obstetric physician should be available to provide care if required. The obstetrician on call should provide care for those women that are booked for an elective caesarean section who go into labour prior to this date.

Management of labour and birth

A detailed pregnancy, labour and delivery and puerperium care plan should be documented on the risk sheet section of the Healthware record. This should include information on mode of delivery, a recent viral load and CD4 count. If the viral load is not suppressed adequately (> log 3 (1000) copies per ml) then it may be recommended for the woman to have an intravenous zidovudine infusion during labour or prior to caesarean section delivery.

Woman who have received antenatal care through MFM clinic are encouraged to come to Labour & Birthing Suite at the earliest signs of labour.

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b) On admission to the labour and birthing suite or WAU

- The on call delivery unit obstetrician should be notified of the woman's admission
- The on call obstetric physician should be available to discuss the management plan
- Anaesthetic staff members should be notified as early as possible, if epidural anaesthesia is likely to be required

The following procedures are routine:

- Refer to the woman's labour and birth plan and follow the usual admission process for labour and birthing suite
- Meet and greet the woman and her support people and admit the woman in the usual way
- For Admission Labour & Birthing Suite policy see associated ADHB documents section
- Perform initial assessment of maternal and fetal well being
- Confirm whether the membranes have ruptured. This is important as there is a possible increase in perinatal HIV transmission with > 4 hours of ruptured membranes. It is unlikely that prolonged rupture of membranes will greatly increase the perinatal transmission rate in women with a fully suppressed HIV viral load.

Established labour

A detailed labour care plan should be documented in the clinical record – refer to the risk sheet on the Healthware record.

Check that the woman has taken her daily antiretroviral medication. Antiretroviral medication should be continued on the day of delivery.

Continue with usual labour cares and clinical assessments. There are no contraindications for pain relief options in labour; however it is important to notify the anaesthetist early if the woman requests an epidural.

Zidovudine infusion

For women with an HIV viral load less than 1000 (log3) copies per ml, intravenous zidovudine is not recommended. If recommended as part of the care plan, high dose intravenous zidovudine is administered to reduce perinatal HIV transmission during labour and birth. A stock of zidovudine is kept on the Labour & Birthing Suite and ward 96/98. If needed, further supply can be obtained from Pharmacy during working hours. After hours,,contact the clinical midwifery advisor for emergency supply.

Refer to the NOID's Medicine Administration Guideline for zidovudine for dosing and administration instructions (see associated ADHB documents section).

Intravenous zidovudine is dosed at 2mg/kg over the first hour, then 1mg/kg/hr thereafter:

- Check antenatal notes for the woman's current weight as this is required to work out the dose of zidovudine to be administered
- Zidovudine infusion continues until the baby is born and the cord is clamped. The infusion is then stopped

Interventions during labour

The following invasive interventions should be avoided in labour as they may increase the risk of vertical transmission:

- Fetal scalp electrodes
- Lactate fetal blood sampling
- Artificial rupture of membranes
- Instrumental delivery

Instrumental delivery

Instrumental delivery should be performed only if the fetal wellbeing is of concern. Forceps may be preferable as ventouse may be associated with higher rates of fetal trauma. The obstetrician should discuss the management of the woman with the on call MFM consultant at the time if there are any clinical concerns.

Management of labour following spontaneous rupture of membranes

There is a possible increase in transmission of HIV with > 4 hours of ruptured membranes. Labour should be augmented promptly following spontaneous rupture of membranes.

Third stage of labour

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

Take blood for full blood count (FBC) from cord bloods at delivery. No information regarding maternal HIV status is required when requesting FBC for the baby.

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7. Care of the neonate

Paediatric care and follow up

A paediatric consultant should have met with the parents at an antenatal visit to discuss the postnatal management of the baby. A copy of Paediatric Management of Infants Born to HIV Infected Pregnant Woman should be placed in the mother's clinical record for reference during labour. These guidelines are available on the intranet under Newborn Services, policies, HIV (Human Immunodeficiency Virus) HIV - Nursing Care of Babies (see associated ADHB documents section).

Follow the procedures below:

- The paediatric registrar should be notified when the woman arrives in labour
- Paediatric staff members may be required at the birth, assess each case according to clinical indication
- Inform the on call paediatric registrar of delivery if not present at the birth
- The paediatric registrar to review the baby after delivery and chart antiretroviral drugs
- Antiretroviral medication should be commenced within 6 hours after birth
- Take cord blood for FBC at delivery

The following steps are routine:

- Avoidance of breastfeeding
- Washing baby in a warm bath soon after birth and before Vitamin K or any intramuscular medications
- Intramuscular Vitamin K administration
- Administration of oral antiretroviral therapy within a few hours of birth
- Avoidance of any live vaccinations e.g. BCG
- The baby should be transferred to ward 96/98 with the mother for routine postnatal care
- The baby should remain under paediatric care on ward 96/98

Neonatal treatment - Zidovudine

The neonate should be prescribed antiretroviral therapy for 4 weeks to reduce perinatal transmission of HIV virus. For the Neonatal Zidovudine Drug Protocol see associated ADHB documents section (or the Newborn Services website).

Administration of oral antiretroviral therapy should begin within a few hours of birth. A four week course of antiretroviral therapy for the baby should be prescribed by the paediatric registrar at delivery. An Infectious Diseases consultant must apply for a special authority number for funding of zidovudine prior to discharge (see the Neonatal Drug Protocol for more details) A stock of zidovudine syrup is kept in the ward, however in emergency there is stock available in Labour & Birthing Suite.

Babies born to unbooked women with high level reactive HIV EIA result

The paediatrician should be informed immediately that the HIV EIA result is high level reactive HIV EIA. Based on this result the baby is prescribed antiretroviral treatment to reduce perinatal transmission of the HIV virus. This should be administered to the baby following birth as per protocol.

The antiretroviral medication should be commenced within 6 hours after birth and continued until subsequent laboratory testing confirms the woman's HIV status. Viral load is likely to take 5 – 7 working days.

Paediatric follow up

All babies born to HIV infected mothers; including babies born to mothers with a high level reactive HIV EIA should be followed up at the neonatologist clinic until 18 months, unless they are diagnosed with HIV infection, in which case care will be transferred to a specialist at Starship.

For further information on bloods tests required for babies after delivery see HIV (Human Immunodeficiency Virus) HIV - Nursing Care of Babies in the associated ADHB documents section.

Postnatal care and discharge planning

HIV infected women may be at increased risk of postpartum morbidity. These women may not, therefore, be suitable for early discharge postpartum. The usual postnatal stay for women is 3 days; this is to ensure that there is enough time for mothers to learn about preparation required for bottle feeding their baby.

Woman should be transferred to ward 96/98 for routine postnatal care with their baby. A designated midwife from the MFM team should provide midwifery care for HIV infected women on discharge from NWH. Women are routinely discharged from midwifery care at 6 weeks. Woman residing in the greater Auckland area should continue to receive ongoing HIV specialist care through the community HIV team and the ID department at ACH.

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8. Infant feeding

Consistent with the World Health Organization guidelines (updated in 2004), the MOH recommends that HIV infected mothers in New Zealand do not breastfeed their children.

While on the ward maternity staff members should ensure mothers know how to sterilise bottles and make up feeds safely.

If a woman does choose to breastfeed, then this decision must be discussed with the paediatric team caring for the baby. The mother must be aware that the baby continues to be exposed to the risk of mother-to-child transmission during breastfeeding.

Lactation suppression

Cabergoline (Dostinex) is a medication that may be prescribed for woman to inhibit her lactation by medical staff members. It should be prescribed on 1st day postpartum.

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9. Confidentiality of client information

All client information should be kept confidential at all times. Only staff members directly involved in maternity and paediatric care should have access to the patient's clinical record. For privacy of Patient Information policy see associated ADHB documents section:

- Care plan to be documented on Risk Sheet on Healthware
- No documentation of HIV status on whiteboard
- Documentation of HIV status confined to clinical record and should not be documented on the outside of clinical record
- Staff members should take extra care to ensure that a woman's HIV status is not written on the ward list as printed lists may be left lying around
- Correspondence should be copied to members of the clinical team and to the general practitioner with the woman's consent
- Do not discuss issues related to HIV infection when any visitors or family are in the room.
- Ensure drug chart records for either the baby and the mother are not left in the woman's room.

Giving results

There are numerous issues facing a woman with a confirmed HIV infection. Support for the woman and her family/whānau is available from the community HIV team based at ACH. The community HIV team are available to facilitate counselling and arrange referrals to other support agencies such as Positive Women. There is a designated social worker within the community HIV team that can assist with any advocacy and other social issues.

Communication – key message

If the requestor is unavailable, due to a change of shift, then it is the responsibility of the health professional taking over the woman's care to communicate the reactive HIV EIA result.

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10. Standard precautions

Standard precautions are used when in contact with all:

- Body fluids
- Secretions and excretions (except sweat)
- Non-intact skin
- Mucous membranes

Standard precautions to be followed regarding exposure to blood and body fluids (see associated ADHB documents section).

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11. Referral process

How to contact the community HIV team

Contact details

- Notify community HIV team
- Available weekdays 9am - 5pm
- Direct dial 09 375 7077 or 307 4949 ext 22977
- Leave a message, phone checked regularly

How to contact ID physician

- Phone operator (09) 307 4949
- Ask for on call adult ID physician

Positive women

Positive Women provides information and peer support for people living with HIV and AIDS

- Weekday hours Mon – Fri 9am – 5pm
- Ph (09) 309 - 1858
- Email: positivewomen@xtra.co.nz

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12. Supporting evidence

- Index of related documents National screening Unit Feb 2008; Guidelines for Maternity Providers offering Antenatal Screening in New Zealand
- National Health Committee 2004. A Report HIV
- National Screening Unit 2008: Guidelines for Maternity Providers offering antenatal HIV screening in pregnancy
- NSU. 2008. Universal Offer Antenatal HIV Screening Programme Standards Policy and Quality
- Wilkinson, L. 2008. HIV in Pregnancy
- Roberts, S. 2008. Antenatal HIV Screening: Laboratory
- Roberts, S. 2008. Antenatal HIV Screening: Laboratory algorithm for testing

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13. Legislation

- Code of Health & Disability Services Consumers Rights 2004

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14. Associated ADHB documents

- Admission – Unbooked Women in Labour
- Fetal Heart Rate - Intrapartum - Surveillance
- Group B Streptococcal Neonatal Disease Prevention
- Hepatitis B Vaccination
- HIV (Human Immunodeficiency Virus
- HIV - Nursing Care of Babies Born to HIV Positive Pregnant Women
- HIV Screening in Pregnancy
- Infection Prevention & Control
- Intrapartum Care - Normal Labour & Birth
- Medication Administration - Zidovudine
- Observation Postpartum - Maternal
- Oxytocin (Syntocinon) for Induction & Augmentation of Labour
- Privacy of Patient Information
- Rupture of Membranes in Pregnancy
- Standard Precautions – Infection Control
- Zidovudine Drug Protocol

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15. Disclaimer

No guideline can cover all variations required for specific circumstances. It is the responsibility of the health care practitioners using this ADHB guideline to adapt it for safe use within their own institution, recognise the need for specialist help, and call for it without delay, when an individual patient falls outside of the boundaries of this guideline.

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16. Corrections and amendments

The next scheduled review of this document is as per the document classification table (page 1). However, if the reader notices any errors or believes that the document should be reviewed ***before*** the scheduled date, they should contact the owner or the Clinical Policy Advisor without delay.

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