CLINICAL PRACTICE GUIDELINE

HIV positive: Management of the woman and her neonate

This document should be read in conjunction with the Disclaimer

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Key points

1. Human immunodeficiency virus (HIV) screening is strongly recommended for all pregnant women and should be offered as a routine component of initial prenatal care.
2. Optimal management of HIV in pregnancy has been demonstrated to reduce perinatal transmission to <1%.
3. Management of HIV positive pregnant women requires co-ordination of care between adult and paediatric HIV management teams and the Maternal Fetal Medicine (MFM) obstetric team.
    - Antiretroviral therapy (ART) is recommended for all HIV Infected women who are pregnant
4. If the maternal HIV viral load is undetectable and the woman is on antiretroviral treatment, vaginal birth may be offered as an option.
    - If maternal HIV viral load is undetectable intrapartum maternal Zidovudine may not be required
5. HIV may be transmitted in breast milk. HIV positive women are recommended not to breastfeed.
6. No additional infection prevention precautions beyond Standard Precautions are required.

Antenatal management

Screening

All women should be, with their consent, tested for HIV optimally in early pregnancy and informed of their results with appropriate counselling.

Screening for HIV is conducted by an initial enzyme-linked immunosorbent assay (ELISA) for HIV antibody and if positive, the result is confirmed by a Western Blot.

Notification to the Health Department for NEWLY diagnosed HIV positive women

Complete the Department of Health 'HIV infection Notification Form'.

Management

1. All women living with HIV and those with newly diagnosed HIV are referred to the MFM Service for obstetric care and co-ordination of multidisciplinary management for both the woman and her neonate.
2. A written referral from the MFM Service shall be sent to the **Combined Immunodeficiency Clinic** at Perth Children's Hospital (PCH) via the

Immunology Clinical Nurse Specialist (CNS) available at PCH on page 8311 / ext. 64356.

- The PCH Immunology CNS will liaise with the obstetrician, adult physician, paediatrician, neonatologist, social workers and other multi-disciplinary staff to discuss the individual case. A Paediatric Infectious Diseases Physician will be assigned to manage the newborn. The Immunology CNS will arrange a meeting with the parents and the assigned Paediatrician. Wherever possible, this meeting should occur at least 1 month prior to the expected due date.
- A neonate anti-retroviral regimen is formulated, after meeting the parents in the third trimester at PCH, and documented on an "MR409 Antiretroviral Regimen and Management Plan for the Neonate form" and circulated to the Multidisciplinary Pregnancy Team one month prior to the expected date of delivery. The PCH Immunology will send/fax to MFM KEMH and the MFM Clinical Midwifery Consultant (CMC) will insert the completed form in the neonatal shadow file which is located in the mother's KEMH medical record with the protocol for management of neonates born to HIV positive women.

3. Accurate pregnancy dating with ultrasound should be confirmed as soon as possible.
4. ART is indicated for all HIV positive women. The HIV physician will create the ART regimen for each woman, tailored to her viral resistance studies and lifestyle. If the woman is not on ART prior to conception, this will be commenced by the HIV physician at the end of the first trimester.
5. Women are encouraged to bring their own ART medications to hospital when admitted to KEMH, to ensure no interruption to treatment schedules. Antiretroviral agents are restricted under KEMH antimicrobial stewardship guidelines but are considered approved if prescribed by an HIV physician. Additional microbiologist approval is not required.
6. The maternal HIV viral load and T-cell subsets are assessed every trimester for women with an undetectable viral load and at 36 weeks gestation. Testing is more frequent when maximal viral load suppression has not been achieved. The maternal HIV viral load at 36 weeks gestation has consistently been demonstrated to reflect the perinatal HIV transmission risk.
7. Prenatal diagnostic tests such as chorionic villus sampling (CVS) /amniocentesis may be offered as appropriate; however such procedures do appear to increase the risk of antenatal HIV transmission and should be performed only after full discussion with the woman. In general, non-invasive prenatal testing (NIPT) is a more reasonable option for fetal assessment of chromosomal disorders and may be considered as a first line screening test in HIV positive women given its lower false positive rate than other currently available methods.

8. Mode of delivery will be decided by the MFM Service obstetric team and the woman, based on obstetric and HIV viral load factors.
9. The requirement for intrapartum Zidovudine depends on maternal viral load and regimen adherence.
10. Women should be advised that the safest option for her child for maximal reduction of mother-to-child transmission (MTCT) is to completely avoid breastfeeding.

Intrapartum management

Admission

- A **booked** woman with HIV

  Inform:
  1. the Labour and Birth Suite Co-ordinator
  2. Registrar/Senior Registrar who will liaise with the MFM Obstetric Registrar/Consultant
  3. PCH Immunology CNS (ext. 64356 / pager 8311)
- An unbooked women presenting with HIV, and no involvement of the Paediatric HIV team or the Multidisciplinary pregnancy group
  1. Inform the Co-ordinator of the Labour and Birth Suite.
  2. Inform the Consultant on duty for Labour and Birth Suite.
  3. Inform the MFM specialist Head of Department who will liaise with the appropriate adult HIV immunologist to create an ART regimen for the woman.
  4. Contact the On-Call Paediatric Infectious Diseases Consultant via PCH switchboard immediately to discuss ART prophylaxis and testing for the neonate. **Prophylaxis with antivirals needs to be commenced within 4 hours of birth.**
- Admission of a woman with an **unknown HIV status**, but thought to be **at high risk** for HIV (e.g. immigrated from high risk country, high risk sexual behaviours, or recent IV drug use)
  1. Contact the Clinical Microbiologist on call to discuss urgent testing
  2. Paediatric Infectious Diseases Consultant on call from PCH in regards to ART neonatal prophylaxis.

     If prophylaxis with antivirals is required for the neonate, it should be commenced within 4 hours.

Maternal zidovudine regimen

Vaginal birth

IV zidovudine is no longer required for women receiving ART with an undetectable viral load **in whom there are no concerns regarding adherence**

Elective caesarean section

IV zidovudine is no longer required for women receiving ART with an undetectable viral load in whom there are **no concerns regarding adherence** who are scheduled for an elective caesarean birth.

For women with a detectable viral load or who have not received ART antenatally, zidovudine is required.

Commence zidovudine as soon as diagnosis of labour is made or 4 hours prior to elective caesarean birth. Continue the infusion until birth of the baby and clamping of the umbilical cord.
See WNHS, Pharmacy, Adult Medication Guideline: Zidovudine for administration and compatibility information.

If the above strategies are followed, perinatal transmission rates of ≤ 1% are expected.

At birth

Notify

- On-call Consultant neonatologist / Senior Registrar KEMH
- On-call Paediatric Infectious Diseases Consultant at PCH
- Refer to the neonate's Antiretroviral Regimen and Management Plan for Neonate form (MR409), in the neonatal shadow file in the correspondence section of the mother's medical chart, regarding bloods and medications required for the neonate. This form must be transferred to the neonate's chart with the neonate's UMRN label attached.
- Bathing:

  For a well baby:

  - The baby should be wiped down after birth and all excess maternal blood removed. The baby can then have skin-to-skin with the mother.
  - The baby should be bathed as soon as practical within 2 hours of birth.
  - No intramuscular injections should be administered until the baby has been bathed. There is no urgency to administer Vitamin K.

  For a sick baby who cannot be bathed:

  - Before any invasive procedures are carried out, the skin should be cleaned with an alcohol swap.

Recommended medications for the neonate

See PCH Clinical Guideline: HIV Prevention in Infants born to HIV Positive Women and WNHS Neonatal Medication Guideline: Zidovudine

Postnatal maternal management

- The recommendation to reduce the risk of post- partum transmission is for exclusive formula feeding from birth with complete avoidance of breast feeding or mixed breast / formula feeding. See KEMH Clinical Guideline: Obstetrics & Gynaecology: Newborn Feeding: Formula Feed when Medical Indication.
- Refer to the neonate's Antiretroviral Regimen and Management Plan (MR409) regarding the plan for mode of feeding for the neonate
- Administer Cabergoline 1mg for lactation suppression. Contact the Clinical Midwifery Consultant (KEMH Breastfeeding Centre) for support with lactation suppression
- ART will be prescribed by the HIV physician.
- Expert contraceptive advice is essential prior to discharge. See also Clinical Guideline, O&G: Contraception: Postpartum.
- A parent telehealth conference will be organised with Immunology CNS from PCH, neonatologist and midwife prior to discharge.

References

1. British HIV Association. British HIV Association guidelines for the management of HIV infection in pregnant women 2012. HIV Medicine [Internet]. Accessed May 2014;15(4):1-77. Available from: http://www.bhiva.org/documents/Guidelines/Pregnancy/2012/BHIVA-Pregnancy-guidelines-update-2014.pdf.
2. Recommendations for Use of Antiretroviral Drugs in Pregnant HIV-1- Infected Women for Maternal Health and Interventions to reduce Perinatal HIV Transmission in the United States.
3. Management of Perinatal Infections. ASID. 2014

Related legislation and policies

PCH Clinical Guideline: HIV Prevention in Infants born to HIV Positive Women

Related WNHS policies, procedures and guidelines

KEMH Clinical Guidelines:

- Infection Prevention and Management: Standard Precautions
- Neonatology: HIV Care of the Infant Born to a HIV Positive Woman
- Obstetrics & Gynaecology:
    - Contraception: Postpartum
    - Newborn Feeding: Formula Feed when Medical Indication
- Pharmacy- **Adult** medications: Cabergoline; Zidovudine (adult)
- Pharmacy**: Neonatal** medication guideline: Zidovudine (neonate)

Useful resources (including related forms)

Neonatal Antiretroviral Regimen and Management Plan (MR409)

Neonatal shadow file

Department of Health: HIV infection Notification Form

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