OBSTETRICS AND GYNAECOLOGY
CLINICAL PRACTICE GUIDELINE

Human immunodeficiency virus (HIV): Management of people living with HIV and their neonate

Scope (Staff):	WNHS Obstetrics and Gynaecology Directorate staff
Scope (Area):	Obstetrics and Gynaecology Directorate clinical areas at KEMH, OPH and home visiting

This document should be read in conjunction with this Disclaimer

Contents

Key points

1. Human immunodeficiency virus (HIV) screening is strongly recommended for all pregnant people 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 people 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 people who are pregnant
4. If the maternal HIV viral load is undetectable and the person is on antiretroviral treatment, the mode of birth is based on obstetric indications.
    - If maternal HIV viral load is undetectable intrapartum maternal Zidovudine is no longer required.
5. HIV may be transmitted in breast milk. The current ASHM guidelines recommend that the safest choice to minimise HIV transmission is exclusive formula feeding. See Newborn Feeding section in this document for considerations and options.
6. No additional infection prevention precautions beyond Standard Precautions are required.

Antenatal management

Screening

HIV testing still has requirements for pre and post counselling. All pregnant people should be counselled and, 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 people NEWLY diagnosed with HIV

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

Management

1. All pregnant people 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 individual and their neonate.

2. An e-Referral from the MFM Service shall be sent to the **Infectious Diseases (ID) Team** at Perth Children's Hospital (PCH).
    - It is preferable that referrals are made before the third trimester, or earlier if there is a high risk of preterm birth. Any ongoing clinic letters after the date of referral can be sent to the PCH Immunology Clinical Nurse Specialist (CNS) and the PCH ID Administrative Assistant.
    - The PCH Immunology CNS will liaise with the obstetrician, adult physician, paediatrician, neonatologist, lactation services, 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 "**Infant Antiretroviral and Management Plan MR409**" and circulated to the Multidisciplinary Pregnancy Team one month prior to the expected date of birth. The PCH Immunology CNS will send the completed form to MFM KEMH and the MFM Clinical Midwifery Consultant (CMC) will arrange for this to be this scanned into the Digital Medical record (DMR)- see full communication process in Neonatal section below.
3. Accurate pregnancy dating with ultrasound should be confirmed as soon as possible.
4. ART is indicated for all HIV positive people. The HIV physician will create the ART regimen for each individual, tailored to their viral resistance studies and lifestyle. If the individual is not on ART prior to conception, ART will be commenced with consultation (patient and clinician) by the HIV physician as soon as possible.
5. All pregnant people are encouraged to have immunisation for pertussis, influenza and COVID when required antenatally.
6. Patients are encouraged to bring their own ART medications to hospital when admitted to WNHS, to ensure no interruption to treatment schedules.
7. The maternal HIV viral load and T-cell subsets are assessed every trimester for pregnant people 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.
8. Routine aneuploidy screening is offered to all pregnant people living with HIV. Management of increased probability results requires direct consultation by a MFM specialist with the pregnant person.

9. An **individualised obstetric management plan** (both prenatal and intrapartum) will (apart from unexpected emergencies) be developed, in discussion with the pregnant person, and documented in the DMR prior to birth.
    - If the person's viral load is undetectable (<40 RNA copies/ml) birth mode is based on obstetric indications (including people with hepatitis B virus (HBV) and hepatitis C virus (HCV) coinfection)
    - If an elective caesarean birth is planned this should be scheduled for 39 weeks gestation
    - If the person has a detectable viral load, IV zidovudine will be required for 3 hours pre-caesarean birth and ceased following birth (see below for dosage regimen)
10. Parents should be advised that the safest option for their child for maximal reduction of perinatal transmission (also known as mother-to-child transmission) is to exclusively formula feed from birth (refer to CAHS PCH HIV Prevention in Infants Born to HIV Positive People protocol regarding advice on mode of infant feeding).
    - **Note**: PCH Immunology will also refer all patients to the CMC Breastfeeding Centre (BFC) of WA for lactation / suppression discussion.
    - See also section below for Neonatal Feeding

Intrapartum management

Admission

Note: Directions for staff to be contacted applies both in-hours and after hours.

- A **booked** person living 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. 6456 4356/ via PCH switchboard on 6456 2222)
- An **unbooked** person 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 ID Consultant on call (FSH) or the Adult Immunology Consultant on call (RPH) to create an ART regimen.
  4. Contact the On-Call Paediatric ID Consultant via PCH switchboard immediately to discuss ART prophylaxis and testing for neonate.

Prophylaxis with antivirals needs to be commenced within 4 hours of birth.

- Admission of a person 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. Inform the MFM specialist Head of Department who will liaise with the ID Consultant on-call (FSH) or Adult Immunology Consultant on call (RPH) Service.
    3. Paediatric Infectious Diseases Consultant on call from PCH in regard to ART neonatal prophylaxis.

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

Maternal zidovudine regimen

Labour and vaginal birth

- People **receiving ART** with an **undetectable viral load** in whom there are **no concerns regarding adherence:** peripartum IV zidovudine is no longer required**.**
- For people with a detectable viral load who decline caesarean section, intravenous zidovudine should be administered (see below for administration methods)

Caesarean section

- People **receiving ART** with an **undetectable viral load** in whom there are **no concerns regarding adherence** who are scheduled for **caesarean birth**: IV zidovudine is no longer required.
- For people with a **detectable viral load OR** who have **not received ART** antenatally: Zidovudine is strongly recommended.

Zidovudine regimen

Peripartum zidovudine is recommended for people with a detectable viral load or those where adherence is suboptimal who are having a caesarean birth or who decline caesarean birth and plan a vaginal birth.
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:

1. Midwife to notify KEMH Neonatal RMO/REG within 1 hour of birth
2. KEMH Neonatal RMO/REG to notify, by 3 hours of life, both the:
    - On-call Consultant Neonatologist / Senior Registrar KEMH
    - On-call Paediatric ID Consultant at PCH

Follow 'Infant Antiretroviral and Management Plan':

Refer to the 'Infant Antiretroviral and Management Plan' form (MR409), in the maternal DMR. A hard copy of this management plan will be sent to KEMH neonatal paediatrics antenatally. 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 People and WNHS Pharmacy: **Neonatal** Medication Guideline: Zidovudine

Postnatal maternal management and neonatal feeding

Postnatal maternal management

1. The individual should continue their ART regimen post-birth
2. If possible, avoid ergometrine for postpartum haemorrhage (PPH) in people receiving protease inhibitors as a component of the ART regimen. If clinically necessary, use in the lowest dose possible and for the shortest period possible.
3. Discuss contraception and prescribe prior to discharge. Provide specific follow-up advice for those people requesting long-acting reversible contraceptives (LARC).

Neonatal feeding

- Refer to the Infant Antiretroviral and Management Plan' (MR409) regarding the plan for mode of feeding for the neonate
- The first 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.
    - Note: If a person with HIV infection considers breast or chest-feeding their baby, advise them that the safest choice to minimise HIV transmission is exclusive formula feeding. However, issues such as affordable and safe access to formula should also be considered and decisions made based on shared decision-making and counselling. If a person with HIV infection requests to breast or chest-feed their baby, they should receive supportive, individualised counselling to ensure a transmission risk reduction approach is adopted.
    - For some people, not having an opportunity to breast feed can create many adverse impacts including cultural, social, emotional and financial. People who express an interest in breastfeeding will be counselled by the PCH Infectious Diseases (ID) team, WNHS CMC BFC and the KEMH MFM team (and provided with written information) to assist them to make an informed choice.
    - See WNHS Clinical Guideline: Obstetrics and Gynaecology: Newborn Feeding and Maternal Lactation: 'Formula Feed when Medical Indication'.
    - See also National Association of People with HIV Australia resource: Breastfeeding for Women Living with HIV in Australia (2021) (external website, PDF, 1.16MB).

Maternal management

- If choice is to NOT breastfeed: Ask if they want Cabergoline for lactation suppression. Contact the WNHS CMC BFC 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, Obstetrics and Gynaecology: Contraception: Postpartum.
- A member of The PCH Infectious Diseases team (ID consultant and/or Immunology CNS) will provide education and review to the parent/s prior to discharge (either in person at KEMH or via telephone).

References

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Related legislation and policies

CAHS PCH Neonatology Clinical Guideline: HIV Prevention in Infants Born to HIV Positive People

Related WNHS policies, procedures and guidelines

WNHS Clinical Guidelines:

- Infection Prevention and Management: Standard and Transmission-Based Precautions
- Obstetrics and Gynaecology:
  - Contraception: 'Postpartum'
  - Newborn Feeding and Maternal Lactation: Breastfeeding challenges: Neonatal challenges: 'Formula Feed when Medical Indication' and "Formula Feeding'
- Pharmacy- **Adult** medications: Cabergoline; Zidovudine (adult)
- Pharmacy**: Neonatal** medication guideline: Zidovudine (neonate)

Useful resources (including related forms)

Infant Antiretroviral and Management Plan (MR409)

Department of Health: HIV infection Notification Form

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Version history

Version number	Date	Summary
1	Oct 2004	First version
2-4	Prior to June 2014	Archived- contact OGD Guideline Coordinator for previous versions. Original titled as B.2.13: 'Management of the HIV Positive Pregnant Woman and Her Neonate'(DPMS Ref 5193)
5	June 2014	Zidovudine no longer recommended for people delivering with an undetectable viral load and who are established on an antiviral regimen with no concerns regarding adherence to the regimen; regardless of mode of delivery. For people delivering with detectable viral load or who have not been adherent to an antiretroviral regimen, IV Zidovudine should be commenced as soon as a diagnosis of labour is made, or 4 hours prior to an elective caesarean birth.
6	Nov 2016	Amalgamated content from quick reference guide on same topic (B2.13.2: 'QRG Management of the Pregnant HIV Positive Woman')
7	Dec 2017	• Maternal HIV viral load and T-cell subsets are assessed every trimester for people 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. • NIPT more reasonable option for fetal assessment of chromosomal disorders and may be considered as first line screening test in HIV positive people given its lower false positive rate

8	Oct 2018	• Bathing the neonate section updated: 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 IM injections 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. • Reference to PMH changed to PCH and PCH contact details updated- CNS phone extension changed to 64356 • For unbooked HIV positive person intrapartum, added point 3 (to inform the MFM specialist Head of Department who will liaise with the appropriate adult HIV immunologist to create an ART regimen for the individual) • If prophylaxis with antivirals is required for the neonate, to be commenced within 4 hours • Postnatal: A parent telehealth conference will be organised with Immunology CNS from PCH, neonatologist and midwife prior to discharge
9	Aug 2023	• Title changed to 'HIV: Management of the person living with HIV and their neonate' and adapted throughout with gender inclusive language. Associated neonatal form (MR409) title and content updated. • **Antenatal**: ➢ Mode of birth planning is based on obstetric indications ➢ Referral to PCH Immunology: It is preferable that referrals are made before the third trimester, or earlier if there is a high risk of preterm birth. Any ongoing clinic letters after the date of referral can be sent to the PCH Immunology Clinical Nurse Specialist (CNS) and the PCH ID Administrative Assistant ➢ PCH Immunology will refer antenatally to the CMC BFC to discuss lactation / suppression ➢ Statement recommending antenatal vaccinations added ➢ Updated process for neonatal management plans- now includes scanning into DMR and copy to neonatology – read section ➢ Routine aneuploidy screening in offered to all pregnant people living with HIV with management of increased probability results requiring direct consultation by a MFM

		specialist with the pregnant person ➢ An individualised obstetric management plan (both prenatal and intrapartum) will (apart from unexpected emergencies) be developed, in discussion with the person living with HIV, and documented in the DMR prior to birth- see section in guideline for considerations • **Intrapartum and birth** ➢ For unbooked people living with HIV, or those with unknown HIV status who are considered at high risk of HIV: Contact changed to ID Consultant on call (FSH) or the Adult Immunology Consultant on call (RPH) ➢ Peripartum zidovudine is recommended for people with a detectable viral load or those where adherence is suboptimal who are having a caesarean birth or who decline caesarean birth and plan a vaginal birth ➢ Midwife to notify KEMH Neonatal RMO/REG within **1 hour** of birth; and KEMH Neonatal RMO/REG to notify, **by 3 hours** of life, both the on-call Consultant Neonatologist / Senior Registrar KEMH and on-call Paediatric ID Consultant at PCH • **Postnatal**: ➢ Continue ART regimen post-birth ➢ If possible, avoid ergometrine for PPH in people receiving protease inhibitors as a component of the ART regimen. If clinically necessary, use in the lowest dose possible and for the shortest period possible. ➢ Discuss contraception and prescribe prior to discharge. Provide follow-up advice for people requesting LARC. • **Newborn** feeding considerations and options updated- see sections in guideline

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