Obstetric management of HIV positive women in pregnancy and labour

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1.0 Introduction

HIV is a complex chronic medical condition which, if untreated, is associated with high morbidity and mortality. Transmission is through sexual intercourse, injecting drug use, transfusion of blood or blood products, from mother to child during pregnancy and breastfeeding. HIV is a retrovirus containing reverse transcriptase. This enzyme allows the virus to transcribe its RNA genome into DNA, which then integrates into host cell DNA. HIV preferentially targets lymphocytes expressing CD4 molecules, causing progressive immunosuppression. When CD4 lymphocytes fall below a critical level, infected individuals become more susceptible to opportunistic infections and malignancies. Treatment with a combination of 3 or more anti-retroviral drugs, known as highly active anti-retroviral therapy (ART), has resulted in a dramatic decline in morbidity and an increase in life expectancy. Mother-to-child transmission rates in treated women have dropped significantly, owing to effective ART and following a multi-disciplinary approach in management of pregnancy

2.0 Objective

The overall purpose of this guideline is to provide straight forward and accessible guidance for staff caring for pregnant women with HIV. The scope includes guidance on the antenatal care of HIV positive women and mode of delivery. The details of anti-retroviral therapy (ART), HIV viral load management and management of the newborn is out of the scope of this guideline. For any questions not answered or concerns relating to a specific patient

population or co-infection with other agents please refer to the comprehensive British HIV Association (BHIVA) guidelines on the management of HIV in pregnancy and postpartum.

Major progress has been made in the UK, as elsewhere, in reducing the rate of vertical transmission of HIV. In 1993, when interventions were virtually non-existent, the vertical transmission rate among diagnosed women was 25.6%.
Between 2000 and 2006, with high antenatal detection rates and uptake of effective interventions, the overall transmission rate from diagnosed women was 1.2%, and less than 1% among women who had received at least 14 days of ART.

These very low transmission rates persist, reducing to an estimated 0.57% in 2007–2011, and 0.27% in 2012–2014.

3.0 Scope

This guideline applies to all medical and midwifery staff working on the maternity unit.

4.0 Main body of the document

All HIV care of HIV positive pregnant women should be managed by the regional HIV MDT.

This guideline focuses on the following aspects of care which are managed locally:

- Mental Health
- Screening and monitoring of pregnant women with HIV
- Laboratory monitoring of pregnant women with HIV
- Antiretroviral Therapy (ART) in pregnancy
- Antenatal management
- Delivery
- Spontaneous Rupture of Membranes (SROM)
- Use of intrapartum intravenous infusion of zidovudine
- Management of an untreated women presenting in labour at term
- Hepatitis C virus (HCV)
- Hepatitis B virus (HBV)
- Multiple pregnancies
- Place of birth
- Water birth
- Breastfeeding
- Postnatal follow-up of women
- Contraception

This guideline should be viewed in conjunction with the **Guideline for Maternal Antenatal Screening Including diagnosis and referral of women with suspected Fetal Abnormality.**

4.1 At the booking appointment

All pregnant women will be given the booklet 'screening tests for you and your baby' and/or the link to the digital version. This is also available in other languages.
https://www.gov.uk/government/publications/screening-tests-for-you-and-yourbaby/introduction

Bloods are taken for infectious diseases: HIV, Hepatitis B and Syphilis.

If blood results negative for HIV:

Continue normal antenatal care.
A repeat test can be offered at any time to high risk women.

If blood results positive for HIV:

Patient informed by the consultant in person.
Book for shared care.
Refer to:

- the lead obstetrician for HIV in pregnancy ○ antenatal and newborn screening coordinator ○ Spectrum Sexual Health Services.

Inform:

- her GP
- Paediatricians
- CMW
- infection control

Commence the care pathway for obstetric women with HIV see appendix 4
Discuss the following:

- Avoidance of invasive procedures ○ Birth plan
- Mode of Delivery, further plan at 36 weeks ○ Infant feeding
- NSHPC* study, consent if patient agrees

(*The NSHPC study conducts active surveillance of pregnancies in women living with HIV, their babies and other children diagnosed with HIV in the UK and Ireland, as part of Public Health England's Infectious Diseases in Pregnancy Screening Programme).

Mental health

The risk of postnatal depression for women with HIV is around 30-40%

Assessment of depression should be undertaken:

- at booking (ANC),
- 4–6 weeks postpartum (HIV physician)
- at 3–4 months postpartum (health visitor)

Sexual health screening of pregnant women with HIV

Sexual health screening is recommended for pregnant women newly diagnosed with HIV and suggested for those already diagnosed with HIV.

Genital tract infections should be treated according to British Association for Sexual Health and HIV (BASHH) guidelines.

4.1.1 Laboratory monitoring of pregnant women with HIV

CD4 count and resistance testing to ART should be done with the involvement of the regional HIV MDT, please see BHIVA guidelines for more information (see references).

A brief summary is below for information:

- HIV resistance testing should be completed and results available prior to initiation of treatment, except for late-presenting women (after 28 weeks) then start treatment as soon as possible.
- In women conceiving on combination ART (cART) there should be a minimum of one CD4 cell count at baseline and **one at delivery.**
- In women who commence ART in pregnancy, a CD4 cell count should be performed at initiation of cART and at delivery even if starting at CD4 >350 cells/mm3.
- In women who commence cART in pregnancy, an HIV viral load should be performed 2–4 weeks after commencing cART, at least once every trimester, at 36 weeks and **at delivery.**
- In women commencing cART in pregnancy, liver function tests (LFTs) should be performed at initiation of cART and then with each routine blood test.
- In the event that a woman who has initiated cART during pregnancy has not suppressed plasma viral load to <50 HIV RNA copies/mL - review adherence, resistance test, initiate therapeutic drug monitoring, review regime. These women will need MOD discussing at the regional HIV MDT.
- It is generally recommended that women conceiving on an effective cART regimen should continue this treatment. There are some exceptions, MDT involvement is necessary.
- No routine dose alterations are recommended for antiretrovirals during pregnancy if used at standard adult licensed doses, apart from Raltegravir, which should be given as 400 mg bd.

All pregnant women should receive ART treatment during pregnancy, and **continue lifelong treatment**. An MDT approach will suggest when and which drugs to use. **All women should have commenced cART by week 24 of pregnancy.**

Stopping ART after delivery is not recommended; women who wish to stop ART should be counselled on the risks and managed as per the BHIVA guidelines.

4.2 Antenatal management

- Offer serial USS at 28,32,36 weeks to all HIV positive women as a minimum.
- No additional anomaly scanning is required. The most common ART have not shown levels of teratogenicity warranting extra anomaly scans.
- Invasive prenatal diagnostic testing should not be performed until after the HIV status of the woman is known, and should ideally be deferred until HIV viral load has been adequately suppressed to <50 HIV RNA copies/ml. If not already on cART and the invasive diagnostic test procedure cannot be delayed until viral suppression is achieved, it is recommended that women should commence cART to include Raltegravir and be given a single dose of Nevirapine 2–4 hours prior to the procedure.
- External cephalic version (ECV) can be offered to women with plasma viral load <50 HIV RNA copies/ml.

4.3 Labour and delivery

- Women with a plasma viral load of **<50 HIV RNA** copies/mL at 36 weeks can aim for NVD or VBAC (unless obstetric contraindications present).
- Women with a plasma viral load of **50–399 HIV RNA** copies/mL at 36 weeks, prelabour CS (PLCS) should be considered. (MDT discussion).
- Where the viral load is **≥400 HIV RNA** copies/mL at 36 weeks, PLCS is recommended. As this is to prevent vertical transmission the CS should be at 38 – 39 weeks. (corticosteroids can be offered).
- Where PLCS is undertaken only for obstetric indications and plasma viral load is <50 HIV RNA copies/mL, this can be at 39+ weeks.
- Invasive procedures in labour should be avoided i.e. No FBS, FSE, ventouse.
- **Ergometrine** should be avoided due to interaction with some HIV medications (HIV protease or reverse transcriptase inhibitors).

4.3.1 Spontaneous Rupture of Membranes (SROM)

In all cases of pre-labour SROM at term, **delivery within 24 hours** should be the aim.

If there is pre-labour SROM at term and a last measured maternal HIV viral load is
- <50 HIV RNA copies/mL, **immediate induction or augmentation is recommended**, with a low threshold for treatment of intrapartum pyrexia.
- 50–399 HIV RNA copies/mL, **category two Caesarean Section is usually recommended**.
- ≥400 HIV RNA copies/mL, **category two Caesarean Section is recommended. The management of preterm SROM at ≥34 weeks** is the same as that of term SROM, except that women at 34–37 weeks' gestation will require group B streptococcus prophylaxis.

When preterm SROM occurs at <34 weeks:

Intramuscular steroids should be administered in accordance with national guidelines.

Where HIV viral load is not controlled, this should be optimised; urgent communication with HIV physician.

There should be multidisciplinary discussion about the timing and mode of delivery. If Viral Load < 50 HIV RNA copies/mL then augmentation can take place at 34 weeks.

4.4 Use of intrapartum intravenous infusion of Zidovudine (AZT)

All Zidovudine for infusion is 200mg/20mls. (10mg/ml)
Zidovudine is given in a concentration of 4mg/ml via an infusion pump.

To mix:
- Withdraw 100ml from a 250ml bag of 5% Dextrose and discard this, leaving 150mls remaining
- Add 100ml Zidovudine injection (5x20mls of Zidovudine 200mg/20mls) to the bag of Dextrose and mix well.

This gives an infusion of 1000mg in 250mls (4mg/ml)

Give a loading dose of 2 mg/kg over 1 hour
Then maintenance dose of 1mg/kg/hour until the cord is clamped.

Intrapartum intravenous zidovudine infusion is recommended in the following circumstances:

- For women with a viral load >1000 HIV RNA copies/mL plasma who present in labour or with SROM or who are admitted for PLCS.
- For untreated women presenting in labour or with SROM in whom the current viral load is not known. Also see below.

The use of intravenous zidovudine for women on cART with a viral load between 50 and 1000 HIV RNA copies/mL can be considered regardless of mode of delivery. However, continued oral dosing of their current regimen is a reasonable alternative.

4.5 Management of an untreated woman presenting in labour at term

Contact HIV physicians as soon as possible. In normal working hours via Spectrum Community Health Clinic on 08000556442

Out of hours, contact them the next working day, or for urgent advice, contact the infectious diseases team at the Royal Hallamshire Hospital through their switch board (0114 2434343)

All women **should** receive:

- Nevirapine 200 mg PO stat dose
- Zidovudine 300 mg PO BD
- Lamivudine 150 mg PO BD
- Raltegravir 400 mg PO BD

They should also receive intravenous zidovudine for the duration of labour and delivery and for 2 hrs before a caesarean section. The regime is the same as per ‘use of intrapartum intravenous infusion of zidovudine’.

In **preterm labour**, if the infant is unlikely to be able to absorb oral medications consider the addition of double-dose tenofovir DF (490 mg) to the treatment described above to load the infant. This would be with neonatal and HIV physician discussion.

Women presenting in labour/SROM requiring delivery without documented HIV status should be encouraged to have point of care testing.

4.6 HIV and Hepatitis C virus (HCV) Co-infection

It is recommended practice that all pregnant women with both active HCV (HCV RNA positive) and HIV should be managed jointly with a clinician experienced in the management of these co-infections, and that those with advanced cirrhosis be managed in a tertiary centre with a Hepatologist.

Pregnant women with both HCV and HIV should not be treated for HCV with Ribavirin (teratogenic), and all women who discover they are pregnant while receiving treatment should discontinue HCV therapy immediately (grade 1B).

On diagnosis of new HCV infection, confirmation of HCV viraemia with quantitative RNA and genotype, assessment of hepatic inflammation/fibrosis and liver function and concomitant liver disease should be performed (grade 1C).

LFTs should be repeated at 2 and 4 weeks after commencing ART to detect evidence of hepatotoxicity then monitored regularly throughout pregnancy and postpartum (grade 1C).

Vaccination against Hepatitis B Virus (HBV) is recommended for all women with both HCV and HIV after the first trimester, unless already immune (grade 1C)

In all Hepatitis A Virus (HAV) non-immune women with both HCV and HIV, HAV vaccination is recommended, after the first trimester as per the normal schedule 0 and 6 months (grade 1A) unless the CD4 cell count is <300 cells/mm3 (grade 1D), when an additional dose (0, 1 and 6 months) may be indicated.

Offer pregnant women who are co-infected with hepatitis C virus and HIV a planned caesarean birth to reduce mother-to-baby transmission of hepatitis C virus and HIV (NICE, 2021)

cART should be continued postpartum in all women with both HIV and HCV regardless of HCV viraemia, fibrosis stage or CD4 cell count (grade 1A).

4.6.1 HIV and Hepatitis B virus (HBV)

On diagnosis of new HBV infection, confirmation of viraemia with quantitative HBV DNA, 'e' antigen status as well as hepatitis A virus (HAV), HCV and hepatitis D virus (HDV) screening and tests to assess hepatic inflammation/fibrosis and liver function are recommended (grade 1C).

LFTs should be repeated at 2 and 4 weeks after commencing ART to detect evidence of hepatotoxicity then monitored regularly throughout pregnancy and postpartum (grade 1C).

There is no evidence of any adverse effect on maternal or neonatal health if women become pregnant while taking ART dually active against HBV, therefore treatment should be continued (grade 1C).

In all HAV non-immune women with HBV and HIV, HAV vaccine is recommended, after the first trimester as per the normal schedule (0 and 6 months); (grade 1A) unless the CD4 cell count is <300 cells/mm3, when an additional dose (0, 1 and 6 months) may be indicated (grade 1D).

cART active against both HBV and HIV should be continued postpartum in all women with HBV and HIV (grade 1A).

Hepatitis flares that occur after delivery should be managed conservatively with careful monitoring (grade 2D).

4.7 Multiple pregnancies

Currently there is no known increased risk of vertical transmission in multiple pregnancies.

4.8 Place of birth

All women with HIV are recommended to give birth in a facility that has direct access to paediatric care in the hospital.

4.8.1 Water birth

Minimal evidence but should be supported to achieve this where the viral load is <50 HIV RNA copies/ml.

4.9 Breastfeeding

In the UK, the safest way to feed infants born to women with HIV is with formula milk.

Abstaining from breastfeeding can have financial and psychological implications.
Suppression of lactation

Women not breastfeeding their infant by choice, or because of viral load >50 HIV RNA copies/ml should be offered Cabergoline.

Choosing to breastfeed level 1d evidence

Women who are virologically suppressed on cART with good adherence and who choose to breastfeed should be supported to do so, but should be informed about the low risk of transmission of HIV.

The woman and her infant should be reviewed monthly in clinic for HIV RNA viral load testing during and for 2 months after stopping breastfeeding.

Maternal cART (rather than infant pre-exposure prophylaxis [PrEP]) is advised to minimise HIV transmission through breastfeeding and safeguard the woman's health.

4.10 Postnatal follow-up of women

All women should be reviewed within 4–6 weeks of delivery by an HIV physician. Ensure this appointment is made before discharging the woman

4.10.1 Contraception

ART may be changed to optimise a woman's contraception choice. Please discuss with HIV physicians regarding appropriate contraceptive choices.

5.0 Roles and responsibilities Midwives

Midwives are responsible for ensuring that women with HIV receive appropriate care in accordance with local guidance.

5.1 Obstetricians

Obstetricians are responsible for ensuring that women with HIV receive care from a multidisciplinary team with expertise in obstetric management and neurological disorders.

6.0 Associated documents and references

British HIV Association guidelines for the management of HIV in pregnancy and postpartum 2018 (2020 third interim update) https://www.bhiva.org/file/5f1aab1ab9aba/BHIVA-Pregnancy-guidelines-2020-3rd-interim-update.pdf

National Surveillance of HIV in Pregnancy and Childhood (NSHPC) https://www.ucl.ac.uk/nshpc/

Public Health England. Guidance for Infectious diseases. Updated 5 January 2021 https://www.gov.uk/government/publications/screening-tests-for-you-and-your-babydescription-in-brief

National Institute for Health and Clinical Excellence. Caesarean birth. March 2021 https://www.nice.org.uk/guidance/ng192/resources/caesarean-birth-pdf-66142078788805

7.0 Training and resources

Training will be delivered as outlined in the Maternity Training Needs Analysis. This is updated on an annual basis.

8.0 Monitoring and audit

Any adverse incidents relating to the guideline for the management of HIV positive women in pregnancy and labour will be monitored via the incident reporting system. Any problems will be actioned via the case review and root cause analysis action plans. The action plans are monitored by the risk midwife to ensure that improvements in care are made. The trends and any root cause analysis are discussed at the monthly risk meetings to ensure that appropriate action has been taken to maintain safety.

The guideline for the management of HIV positive women in pregnancy and labour will be audited in line with the annual audit programme, as agreed by the CBU. The audit action plan will be reviewed at the monthly risk management meetings on a quarterly basis and monitored by the risk midwife to ensure that improvements in care are made.

9.0 Equality and Diversity

This section is mandatory for all Trust Approved Documents and must include the statement below:

The Trust is committed to an environment that promotes equality and embraces diversity in its performance as an employer and service provider. It will adhere to legal and performance requirements and will mainstream equality, diversity and inclusion principles through its policies, procedures and processes. This guideline should be implemented with due regard to this commitment.

To ensure that the implementation of this guideline does not have an adverse impact in response to the requirements of the Equality Act 2010 this policy has been screened for relevance during the policy development process and a full equality impact assessment is conducted where necessary prior to consultation. The Trust will take remedial action when necessary to address any unexpected or unwarranted disparities and monitor practice to ensure that this policy is fairly implemented.

This guideline can be made available in alternative formats on request including large print, Braille, moon, audio, and different languages. To arrange this please refer to the Trust translation and interpretation policy in the first instance.

The Trust will endeavour to make reasonable adjustments to accommodate any employee/patient with particular equality, diversity and inclusion requirements in implementing this guideline. This may include accessibility of meeting/appointment venues, providing translation, arranging an interpreter to attend appointments/meetings, extending policy timeframes to enable translation to be undertaken, or assistance with formulating any written statements.

9.1 Recording and Monitoring of Equality & Diversity

This section is mandatory for all Trust Approved Documents and must include the statement below:

The Trust understands the business case for equality, diversity and inclusion and will make sure that this is translated into practice. Accordingly, all guidelines will be monitored to ensure their effectiveness.

Monitoring information will be collated, analysed and published on an annual basis as part of Equality Delivery System. The monitoring will cover the nine protected characteristics and will meet statutory employment duties under the Equality Act 2010. Where adverse impact is identified through the monitoring process the Trust will investigate and take corrective action to mitigate and prevent any negative impact.

Appendix 1

Glossary of terms

ART Antiretroviral therapy

AZT Zidovudine

BASHH British Association for Sexual Health and HIV

BD Twice daily

BHIVA British HIV Association **cART** Combination antiretroviral therapy

CMW Community midwife

CS Caesarean section

GP General practitioner

HAV Hepatitis A virus

HBV Hepatitis B virus

HCV Hepatitis C virus

HDV Hepatitis D virus

LFT Liver function test

MDT Multidisciplinary team

MOD Mode of delivery

NSHPC National Surveillance of HIV in Pregnancy and Childhood.

NVD Normal vaginal delivery

PLCS Pre-labour caesarean section

SROM Spontaneous rupture of the membranes

STI Sexually transmitted infection

TDM Therapeutic drug monitoring

VBAC Vaginal birth after caesarean section

VL Viral load

Appendix 2

Barnsley Hospital NHS Foundation Trust

Care Of Obstetric Women with HIV Care Flow Chart

Booking appointment
Take bloods
Screening link sent with dating scan appointment

Blood results:

Confirmed Positive:
Referred to Obstetrician/Antenatal Screening Coordinator/ Consultant GU Med
Patient informed by Antenatal Screening Coordinator
Booked for shared care
Obstetrician will discuss treatment/avoidance of invasive procedures. Discuss birth plan. Determine feeding method.
Antenatal Screening Coodinator will informGP, Paediatric Consultant, Community Midwife and Infection Control

Blood Results Confirmed Negative
Inform patient at next visit – continue on normal antenatal care pathway to delivery.
Repeat test if there is a suggested risk

Confirmed Equivocal
Obstetrician / Antenatal Screening coordinator / patient informed of result
Blood taken for retest Results reviewed

Delivery as planned:
Refer to HIV Care pathway for agreed mode of delivery

Monitor pregnancy as per appropriate Antenatal Care Pathway
Monitor HIV viral load in GU Med.

Management in Labour/ Emergency and Elective LSCS

Refer to HIV Care Pathway/ Treatment sheets for drugs to be administered

Commence IV Zidovudine if required when in established labour:

- Initial rate 2mg/Kg/Hour
- Maintenance 1mg/Kg/Hour

IV drug therapy required for a minimum of 4 hours before delivery for an Elective LSCS.

If an emergency LSCS give IV therapy if required regardless of what time the woman presents in labour

Postnatal care - mother

For Mother – refer to HIV Care Pathway

Obtain maternal sample after delivery for viral load and CD4 Count EDTA bottle – 10mls

Inform GU Med after delivery (Antenatal Screening Coordinator will email)

Postnatal care – baby

Refer to HIV Care Pathway

Whilst on BBC – commence oral Zidovudine to baby within 4 hours of birth as per protocol

Review by Paediatrician

Obtain blood samples for:

- FBC, U+E's, LFT's, HIV proviral DNA, Hepatitis B & C if relevant

Obtain urine sample for Cytomegalovirus (CMV).

Not essential – HIV serology/antibody and subsets.

Lymphocyte subsets – not necessary in uncomplicated cases.

Glucose, PH Lactate – if baby unwell.

Label with danger of infection stickers

Inform Antenatal Screening Coordinator of delivery.

On discharge: ensure follow-up appointment made for 6 weeks and 3 months – obtain discharge medication.

Barnsley Hospital NHS Foundation Trust

Name: …….. D.O.B: …… Unit No.

Appendix 3

Care Pathway for Obstetric Women with HIV

ANTENATAL CARE							
Date Samples sent to Sheffield: *(For confirmation of result)*				Date results received: *(Within 10 working days)*			
Communication:	Screening coordinator informed				Obstetrician informed		
Paediatrician informed (via alert form).		GP informed			Infection control Informed		
GU medicine informed		Community midwife informed			GTT arranged if on HAART		
Appointment made to see the woman on: (Within 5 – 10 days of receiving result)				Management documented in care plan by obstetrician.			
Date / Time:	Print name / Signature / Designation:						
Paediatric Review Completed at 24 – 28 weeks			Date / Time::				
Order Zidovudine for Mum at 34 weeks	YES		NA		Inform labour suite at 34 weeks		
Medication Prescribed: for mother	YES		Medication placed on labour ward.		Order Zidovudine for Baby at 34 weeks		
Viral Load - Date:				Undetectable		Detected	

Viral Load - Date:					Undetectable		Detected			
Viral Load - Date:					Undetectable		Detected			
Viral Load - Date:					Undetectable		Detected			
Mother requires oral medication giving at delivery	Yes		No		Mother requires Zidovudine giving at delivery.		Yes		No	
Planned Method of Delivery: (Determined by Obstetrician / GU medicine at 34 weeks)	For vaginal delivery				For Elective LSCS					

If the woman is admitted in preterm labour before a decision has been made:

- **If last viral load is undetectable for normal delivery**

Date / Time:	Print Name / Signature / Designation:

ON ADMISSION

- **Inform infection control when this patient admitted**
- Admit to a single room with their own toilet. Strict isolation is NOT necessary.
- Patient may leave the room for social reasons.
- All examinations / procedures WILL be carried out in the room.
- Gloves and plastic aprons WILL be worn.
- Protective eye wear WILL be worn when contact with bodily fluids is anticipated. E.g. Vaginal examinations, deliveries,
- All Blood samples to be labelled with yellow “Danger of infection”‘label.
- Bath or shower will be disinfected following use with 10,000ppm Chlorine Solution • If APH / PPH occur then full isolation precautions may need to be taken.
- The domestic department WILL be informed to clean the room the woman admitted / delivered in with 10,000ppm Chlorine solution.

On discharge the room will be cleaned as in general guidelines. Wall washing is not required

Barnsley Hospital NHS Foundation Trust

Name:
……..

D.O.B:
……

Unit No.

Barnsley Hospital NHS Foundation Trust

MANAGEMENT IN LABOUR

- **Notify infection control of admission and delivery**
- Check Zidovudine is available on labour ward for baby and mother if applicable.
- Ensure Zidovudine is prescribed on treatment sheets for mother and baby
- Administer Zidovudine infusion as per protocol to mother in established labour if applicable.

POSTNAL MANAGEMENT MOTHER

- Obtain blood sample from mother for viral load on labour ward after delivery.
- Mother should NOT breastfeed
- Inform GU medicine to review mothers medication if applicable

POSTNAL MANAGEMENT BABY

On labour ward:

- Commence oral Zidovudine to baby within 4 hours of birth as per protocol.
- Baby to be reviewed on labour ward by paediatrician who will obtain blood samples as follows: a. FI
    b. HIV proviral DNA
    c. Hepatitis B & C if relevant.
    d. Obtain urine sample from baby for Cytomegalovirus (CMV).
    e. Not essential – HIV serology / antibody and subsets.
    f. Lymphocyte subsets - Not necessary in uncomplicated cases
    g. Glucose, PH lactate – to be done if baby is unwell.

  NB. Label all samples with a danger of infection sticker.

- Notify Antenatal Screening Co-ordinator of delivery.

On discharge:

- Ensure follow up appointment made for 6 weeks and 3 months.
- Obtain discharge medication**.**

Appendix 4 **Zidovudine Infusion Instructions**	Name: …….. D.O.B: …… Unit No.

Mixing Of The Infusion

Zidovudine is given at a concentrate of 4mg/ml via an infusion pump. To Mix:

- Withdraw 100ml from a 250ml bag of Dextrose 5% and discard.
- Add 100ml Zidovudine injection 95 x 20ml vials) to the bag of Dextrose and mix well.
- This gives an infusion of 100mg in 250mls (4mg/ml)

Infusion Rate For Women In Spontaneous Labour

To commence infusion when the woman is in established labour.

1. **Initial rate** is: 2mgs / Kg / Hr.

   i.e. $\frac{\text{Patients weight}}{2}$ kg = ml/hour **for ONE hour**

2. **Maintenance rate** is: 1mg / Kg / Hr

   i.e. $\frac{\text{Patients weight}}{4}$ kg = ml/hour until **the cord is cut.**

Emergency LSCS

The infusion for emergency patients should be mixed prior to transfer to theatre. It should be given irrespective of when the woman was admitted or whether she is in labour.

- Commence infusion at a rate of 2mg / Kg for 1 hour
- Maintenance rate is (1mg / Kg) until the cord is cut.

Elective LSCS

The infusion for elective patients can be mixed in pharmacy

- Commence infusion at least 4 hours prior to LSCS.
- Infuse at a rate of 2mg / Kg for 1 hour
- Maintenance rate is (1mg / Kg) until the cord is cut.

Zidovudine Dosage for Baby

>36 weeks gestation:

- Zidovudine 4mg / kg.
- Administer orally every 12 hours - starting ideally within 4 hours of birth.

30 – 36 weeks Gestation - 2mg / Kg BD for 2 weeks. Then 2mg / kg TDS.

< 30 Weeks Gestation - 2mg / kg BD

NB. Give for a total of 4 weeks

If the mother has been on combination therapy and / or has a high viral load – seek further advice

Appendix 5

Maintain a record of the document history, reviews and key changes made (including versions and dates)

Version	Date	Comments	Author
2	28/06/2023	Updated in accordance with NICE	E Hargreaves

Review Process Prior to Ratification:

Name of Group/Department/Committee	Date
Reviewed at Women's Business and Governance meeting	14/06/2023
Approved by CBU 3 Overarching Governance Meeting	28/06/2023
Approved at Medicines Management Committee (if document relates to medicines)	N/A

Trust Approved Documents (policies, clinical guidelines and procedures)

Approval Form

Please complete the following information and attach to your document when submitting a policy, clinical guideline or procedure for approval.

Document type (policy, clinical guideline or procedure)	Guideline
Document title	Obstetric management of HIV positive women in pregnancy and labour
Document author (Job title and team)	Antenatal & newborn screening coordinator and Labour ward lead obstetric consultant
New or reviewed document	New
List staff groups/departments consulted with during document development	Specialist and lead midwives, obstetric consultants
Approval recommended by (meeting and dates):	Women's Business and Governance meeting 14/06/2023 Approved by CBU 3 Overarching Governance Meeting 28.06/2023
Date of next review (maximum 3 years)	28.06/2026

Key words for search criteria on intranet (max 10 words)	HIV
Key messages for staff (consider changes from previous versions and any impact on patient safety)	
I confirm that this is the FINAL version of this document	Name: Jade Carritt Designation: Governance Midwife

FOR COMPLETION BY THE CLINICAL GOVERNANCE TEAM

Approved by (group/committee): CBU3 Overarching Governance **Date approved:** 28/07/2021 **Date Clinical Governance Administrator informed of approval:** 09/08/2021 **Date uploaded to Trust Approved Documents page:** 10/08/2021