The Shrewsbury and Telford Hospital NHS Trust

HIV Infection Management in Maternity

v. 4.0

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Care Group: Women and Children's'
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Comments: References to SaTH Guidelines in the text pertain to the latest version of the Guideline on the intranet. Paper copies may not be the most up to date version.

Version	Implementation Date	History	Ratified by	Full Review Date
1	14th November 2018	Original guideline	MG & MGG	November 2011
1.1	1st February 2012	Minor updates	GC Authorisation	February 2015
1.2	5th October 2015	Full review in progress. Guideline reflects current practice	MGG Maternity Governance	April 2016
2.0	25th July 2016	Full review in line with National Programme Standards	MGG Maternity Governance	July 2019
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3.1	8th March 2019	Added section on 'Missed Screening'	MGG Maternity Governance	August 2023
3.2	May 2023	Appendix 2- Auditable Standards added		August 2023
4.0	15th September 2023	Full review in line with National Programme Standards	MGG Maternity Governance	September 2026

1.0 Introduction

'In this guideline we use the terms 'woman' or 'mother' throughout. These should be taken to include people who do not identify as women but are pregnant or have given birth'.

HIV is a complex chronic medical condition which, if untreated, is associated with high morbidity and mortality.

The Health Service Circular 1999/183 'Reducing mother-to-baby transmission of HIV' set the following national targets for test uptake and performance:

• screening test to be offered and recommended to all pregnant women by the end of 2000
• minimum antenatal testing uptake of 50% by end of 2000
• 90% uptake of testing everywhere by end of 2002

Universal antenatal screening for HIV was introduced in 1999 following a systematic review. Antenatal screening and the early detection of maternal infection is vital and has had a direct impact on women and babies' health outcomes. Uptake rates for screening in pregnancy have exceeded 97% since 2011.

Mother-to-child vertical transmission is now rare in the UK following the widespread implementation of routine antenatal screening, antiretroviral treatment in pregnancy and avoidance of breastfeeding.

The risk of mother-to-child HIV transmission in an untreated woman in pregnancy is around 25%. However, with early diagnosis, effective treatment and subsequent viral suppression, the risk of transmission is now under 0.27%, (2012-2014).

Between 2012 to 2016 screen positive rates amongst pregnant women also continued to decline along with the newly diagnosed rates in pregnancy. The ethnic origin of women also has changed, with a decrease in women of black African ethnicity and an increase in women from a white background.

Most women living with HIV engage well in care during pregnancy, however HIV is associated with a higher risk of poor mental health and women may also experience psychosocial barriers and have issues relating to social support. It's important to identify any issues as soon as possible so that referral to an appropriate specialist can be made.

2.0 Aims

To ensure that pregnant women booking at any gestation are offered and screened for HIV, in order to reduce maternal to child transmission by offering appropriate treatment in pregnancy and giving information regarding mode of delivery and feeding methods.

3.0 Objectives

- To offer and recommend screening to all women regardless of gestation as part of antenatal care.
- To provide women with national screening information to facilitate informed decision making.
- To ensure that screening is undertaken in a timely manner.
- To ensure that women who initially decline screening are formally re-offered screening by 20 weeks.
- To timely report and review screening test results to support appropriate management of care.
- To provide appropriate information and support to those women with a confirmed diagnosis.
- To ensure appropriate and timely referral to agencies responsible for long term health care.
- To ensure that care pathways exist with clear lines of responsibility.
- To ensure that women are managed by the multidisciplinary team and a plan of care developed.
- To ensure that all newborn infants of HIV positive mothers receive the appropriate treatment needed to protect them against acquired infection.
- To have in place systems for risk assessment and management of adverse incidents occurring during the screening process.

- To participate in routine monitoring of the screening programmes to meet Government recommendations of screening for HIV in pregnancy.
- To have in place effective and robust audit and monitoring processes in line with clinical governance arrangements to improve quality.

4.0 Definitions

SM:	Screening midwife
HIV:	Human Immunodeficiency Virus
HAART:	Highly Active anti-retroviral therapy.
Multidisciplinary team:	Consultant in Sexual Health, HIV specialist Nurse, Obstetric Consultant, Neonatal Consultant, Screening Midwife
MIS	Maternity Information System (Badgernet).
ISSOS	Integrated Screening Outcomes Surveillance Service, collects data on public health disease surveillance

5.0 The Disease

HIV is a retrovirus, which, if left untreated, leads to immunosuppression and eventually to acquired immune deficiency syndrome (AIDS). HIV is present in all body fluids such as blood, semen, vaginal secretions, and breast milk. It can be passed on through unprotected sexual intercourse, direct contact with the blood of an infected person, sharing infected needles, from mother to child during pregnancy, at birth or when breast feeding.

CD4 cells, also known as T-helper cells, are white blood cells which plays an essential part in the human immune system. One of their main roles is to detect pathogens and send signals to other types of immune cells, including CD8 killer cells, to destroy the infectious particles.CD4 cells are made in the spleen, lymph nodes and thymus gland. When HIV enters the body, it targets and invades the CD4 cells in the blood. Once inside the CD4 cell the virus begins a complicated process of replication to produce new HIV virons. When completed, the new virons break through the cell wall and out into the bloodstream, destroying the CD4 cell. The new HIV virons then move to invade other CD4 cells and the process is repeated.

A normal CD4 count in someone who is uninfected and otherwise healthy is between 500 and 1,500 cells per ml of blood. Following HIV infection, the number of CD4 cells will gradually fall. The rate of fall varies from person to person. Eventually, if untreated, the CD4 count falls to a level where the immune system is no longer able to function adequately, and the person becomes susceptible to opportunistic infections and HIV related cancers.

There is not a cure for HIV yet but, antiretroviral therapy can prevent further damage to the immune system. It does so by working to stop the virus at different stages from cell invasion to replication, thereby enabling the CD4 count to be restored to a safe level. Early diagnosis of HIV infection reduces the risk of a person reaching a critically low CD4 count and experiencing serious health problems.

6.0 Screening Pathway

Refer to the Antenatal Screening Guideline- The process, review and communication of screening results regarding:

- Screening Information to women
- The offer and uptake of screening
- Women who book after 20 weeks
- Women who transfer from another unit in their pregnancy
- Women who present in labour
- Women who decline screening
- Women who miscarry/TOP

Screening tests for HIV must detect HIV-1 antibodies, HIV-1 p24 antigen and HIV-2 antibodies using a 4th generation assay. The assays must have a high sensitivity (>99.9%) and specificity (>99.5%).

All results considered to be positive must be confirmed on the initial specimen by 2 further independent assays, using different methodologies.

6.1 Confidentiality

Reassurance about confidentiality is extremely important, especially regarding family members and friends. The importance of informing appropriate health professionals should be discussed with the woman. Consent will be agreed and not assumed with the woman before information is shares with other professionals. The discussion regarding disclosure will be recorded in the woman's Badgernotes.

The process of inpatient care should be explained so that women can be supported in maintaining their confidentiality.

6.2 Screen Negative Results for the woman

- Results should be available on the electronic hospital laboratory reporting system within 3 working days of the test being taken.
- Results are reviewed by the community midwife and the woman is informed of her result at the following antenatal visit.
- The woman should be informed that she was negative at the time of testing, if she deems herself at risk or changes her sexual partner, she can request further screening at any stage in her pregnancy.
- The result is documented on the MIS.

6.3 The Process for the review of a confirmed screen positive result.

- The SM is informed of a screen positive result by telephone from the microbiologist within 3 working days of the sample being received by the laboratory. The SM documents the results on the MIS and establishes whether the diagnosis is known or new.

- If a woman attends her booking appointment with the midwife and her HIV status is known, the midwife should notify the SM to ensure timely care and referral.

- The woman is phoned, and a face-to-face appointment is arranged with the SM within 10 working days of the result being reported by the laboratory.

- For known HIV positive women their results should be discussed

6.4 Communicating a confirmed screen positive screening result to women

The woman is given her screening results face to face within 10 working days of the result being reported by the lab.
For newly diagnosed woman the appointment will be jointly with the SM and the HIV Specialist Nurse.
The screening results are given to the woman initially on her own and only with the woman's consent is the result shared with the woman's partner.
The initial information given will be dependent on how the results are received by the woman and whether a prior diagnosis is known. Initial discussion will include:

- What her screening results mean.
- How the infection is transmitted.
- Who will provide specialist care for her infection
- How Obstetric care will be provided and the planned place of birth
- Discussion and disclosure of diagnosis to others
- Consent to share information with relevant professionals

When arranging an appointment with the woman to discuss her results consider the impact a new diagnosis will have. Allow appropriate time for the woman to be seen to discuss her results.

Following her initial consultation, the woman will be given an appointment with the Obstetric Lead in the next available antenatal clinic and an appointment with Sexual Health / the HIV specialist nurse for follow-up blood tests. If the woman is known to the HIV Specialist Nurse then permission is gained to share information regarding her pregnancy.

6. 5 Documentation

The HIV screening result will be documented in the MIS and the reasons for this fully explained to the woman. The importance of informing appropriate health professionals should be discussed with the woman. Consent will be agreed and not assumed with the woman before information is shares with other professionals. The woman's right to confidentiality must be respected.

6.6 Antenatal Care

A critical component in the prevention of vertical transmission of HIV is to facilitate an MDT approach to pregnancy care.

The multi-disciplinary team (MDT) consists of the Lead Obstetrician, the Consultant in Sexual Health, the HIV Specialist Nurse, the SM and Lead Neonatologist for Infectious Diseases in Pregnancy. The team meet every month. Each woman is reviewed, and an individual plan of care is made.

The Consultant in Sexual Health and the HIV Specialist Nurse

- Provide expert advice and support for the woman regarding her HIV infection.
- Assesses the woman's infection and determines her baseline viral load (the amount of the virus circulating in her bloodstream) and her CD4 lymphocyte count.
- Provides an individual 'Management Plan', to include the woman's latest blood results and drug regime. This will inform the Obstetric Team of the most appropriate plan of care for the woman at that time. **The plan may well change throughout pregnancy therefore always refer to the most recent plan for current management which is found in the MIS.**
- Monitors the woman's viral load and CD4 count and updates the management plan accordingly.
- 36 weeks' gestation bloods will be taken to ascertain the final viral load and CD4 count prior to delivery. If the viral load is suppressed to less than 50 copies, vaginal delivery can be considered provided there are no obstetric indications for caesarean section.

The Lead Obstetrician

- Determines the overall plan of care in conjunction with the sexual health Management Plan.
- Completes a neonatal alert form on the MIS once the final viral load is known at 36 weeks' gestation.
- Advises the woman to birth on the Consultant unit.
- Due to the suggestion that protease inhibitor use may be associated with pre-term deliveries. Women who are treated with a protease inhibitor have been reported to have a higher risk of developing diabetes mellitus during pregnancy. Therefore, a GTT should be offered to women who are taking HAART at booking (RCOG Green-Top Guidance).

The Screening Midwife

- Informs the woman of her screening result.
- Informs the HIV Specialist Nurse/Consultant of the woman.
- Makes an appointment with the Lead Consultant at the next available clinic.
- Provides additional midwifery support during the woman's attendance at Antenatal Clinic
- Coordinates the MDT Meetings

- Completes audit information for ISSOS (Integrated Screening Outcomes Surveillance Service).

The Lead Neonatologist

- Determines the Neonatal Plan of Care following information on the Management Plan from sexual health - The plan for the neonate will be dependent on the woman's current viral load at the time of delivery not the length of time ART has been commenced.

6.7 Treatment in Pregnancy

It is recommended that a woman conceiving on effective antiretroviral therapy should continue this treatment. Any pregnant women on non-standard regimes will be reviewed with the HIV team and their regime adapted appropriately.

All pregnant women not currently on treatment should start ART during pregnancy and be advised to continue life-long treatment. All women should have commenced ART by week 24 of pregnancy. A woman who presents after 28 weeks should start ART without delay.

6.8 Women with a co-infection of Hepatitis B or Hepatitis C

These women will be managed in line with the current BHIVA guidelines for the management of HIV in pregnancy and refer to the BHIVA co-infection guideline.

6.9 Prenatal diagnosis

When an invasive procedure such as a CVS/ Amniocentesis is indicated. The woman will be counselled and advised of the risk of maternal to child HIV transmission, by a fetal medicine specialist/consultant obstetrician. If appropriate non-invasive testing should be discussed. If invasive testing is to be carried out an amniocentesis is recommended (avoiding inserting the needle through the placenta) as this may further reduce vertical transmission and the administration of antiretroviral therapy to cover the procedure will be considered based on an assessment of the woman's VL.

6.10 Women who become unwell during pregnancy

A woman with HIV presenting in pregnancy with signs and symptoms of cholestasis, liver dysfunction, pregnancy induced hypertension or pre-eclampsia may be suffering from complications of pregnancy but may also be experiencing the adverse effects of her antiretroviral therapy.

Any woman who presents in pregnancy with vomiting, malaise or oedema should be investigated for acidosis, hepatitis, pancreatitis and disseminated intravascular coagulation, whether or not she has hypertension or proteinuria.

If lactic acidosis or lactic acidemia is present, discontinuation of antiretroviral therapy must be considered seriously, even at this crucial stage. People infected with HIV who have the most severe form of lactic acidemia (> 10mmol/L) are generally symptomatic, are often acidotic and have a high mortality rate.

6.11 Intra-partum Care

Induction of Labour

For women on HAART with a VL of less than 50 copies/ml, the decision regarding induction of labour will be individualised. There is no contraindication to membrane sweep or to use of prostaglandins.

Women with a detectable VL and opting for a vaginal delivery who are admitted for induction of labour will commence IV AZT infusion when labour becomes established or membranes rupture.

Vaginal Birth after caesarean section (VBAC)

A trial of scar may be considered for women on HAART whose plasma VL is less than 50 copies/ml.

Place of Birth

All women will be advised to birth on the Consultant Unit. If a known HIV positive woman presents in advanced labour at the Midwife Led Unit consultation must be sought from the labour ward co-ordinator and middle grade / consultant obstetrician and a decision, regarding transfer must be made as it would be with any other high risk woman.

Mode of Birth

The current pregnant 'Management plan' will be scanned in the woman's badernotes notes. It will have the most recent blood results and recommendations regarding the woman's mode of delivery.

The recommendations for mode of delivery is determined by the HIV Viral load at 36 weeks gestation.

- If the VL < 50 copies/ml = Normal delivery Indicated
- If VL >50 but <400 = consider pre-labour CS, taking into account actual viral load, trajectory of viral load, length of time on treatment, adherence issues, obstetric factors and the woman's views.
- If the VL > 400 copies / ml = Caesarean delivery indicated

The aim of administering ART in labour (whether by continuation of the mother's oral ART or giving intravenous (IV) Zidovudine (AZT) is to ensure that the baby has therapeutic levels at the time of first exposure, which is usually during delivery. The HIV virus can penetrate the baby's mucus membranes (e.g. mouth/eyes) following exposure to infected cervico-vaginal secretions or maternal blood.

Spontaneous Rupture of Membranes

If vaginal birth is planned and SROM occurs prior to or early after the onset of labour, consider employing active management of labour in order to keep the duration from membranes rupture to birth within 4 hours.

In term pregnancies where labour is not established but there has been SROM, augment labour with IV Oxytocin as soon as reasonably possible with the aim of achieving birth within 24 hours.

If an elective caesarean is planned and SROM occurs when the birth is imminent, birth vaginally with antibiotic cover. If labour is not imminent, proceed to Caesarean section with antibiotic cover.

Caesarean Section

Women with a detectable VL who are admitted for an elective caesarean section will receive at least 4 hours of IV antiretroviral prior to the caesarean section or at the onset of labour (see below for dosages or frequently used antiretroviral drugs in pregnancy) and will continue until the cord has been clamped.

Maternal blood loss will be minimised.

Morbidity after Caesarean section includes an increased incidence of pyrexia, wound infection and pneumonia. Routine antibiotic prophylaxis during caesarean section will be recommended, but there is also a risk associated with the routine use of antibiotics after both elective and emergency Caesarean section.

Antiretroviral treatment in labour.

Dosages of antiretroviral drugs frequently used in labour:

- **Zidovudine (AZT):**
- Loading dose of 2mg/kg IV over 1 hour
- Maintenance dose of 1mg/kg IV hourly

- **Lamivudine: (only if the woman has not commenced ART)**
- 150mg orally stat 3hrs before Caesarean section or at the onset of labour

- **Nevirapine:**
- 200mg orally stat 3hrs before Caesarean section or at the onset of labour.

- **Raltegravir**
- 400mg

Procedures in labour

FSE, episiotomy and instrumental delivery are no longer an absolute contraindication if the woman's VL is < 50 copies/ml, discuss with the Obstetric Consultant.

- **Fetal Scalp Electrode/Fetal Blood Sampling** - Avoid procedures that increase the risk of fetal exposure to maternal blood, e.g. monitoring using a fetal scalp electrode or fetal blood sampling, if labour is progressing satisfactorily.
- **Artificial Rupture of membranes** - Avoid artificially rupturing the membranes unless it is obstetrically indicated. An ARM will only be performed if it is going to alter the management of labour, i.e. suspicious Cardiotocograph (CTG), Oxytocin for dysfunctional labour etc. Wherever possible, for a woman with a detectable viral load start AZT 1 hour prior to ARM.
- **Episiotomy** - If labour is progressing satisfactorily avoid episiotomy unless it is essential.
- **Instrumental delivery** – If indicated, low cavity forceps are preferable to ventouse.

Management of preterm delivery and preterm pre-labour rupture of membranes

All women with threatened or established preterm labour and those with preterm prelabour rupture of membranes (PPROM) will have a genital infection screen preformed and any infections, even if asymptomatic will be treated.

There is no additional contraindication for the use of tocolytics and Betamethasone. These can be used in conjunction with IV AZT where indicated in the event of preterm labour.

For women presenting with threatened preterm labour, multidisciplinary team advice (HIV physicians and paediatricians) will be sought so that, if preterm labour supervenes, there is a detailed plan of care.

For women in preterm labour, urgent multidisciplinary team advice will be sought about the choice of anti-retroviral therapy. Infants born below 32 weeks of gestation may be unable to tolerate oral medication, so administering anti-retroviral therapy to the mother just before and during delivery will provide prophylaxis to the neonate.

Where PPROM occurs after 34 weeks of gestation women need to be discussed / reviewed by the Consultant Obstetrician on call with input from the HIV team. Delivery will be as soon as reasonably possible either by augmentation (if undetectable viral load (VL)) or by Caesarean Section (with at least 1 hour of IV AZT unless obstetric indication for immediate delivery) is expedited. Consideration will be given to starting broad-spectrum intravenous antibiotics.

Where PPROM occurs before 34 weeks of gestation women need to be discussed / reviewed by the Consultant Obstetrician on call with input from the HIV team. Oral erythromycin will be started in accordance with national guidelines for the general population. Consideration will be given to starting

broad-spectrum intravenous antibiotics. Evidence of chorioamnionitis and fetal distress are indications for prompt delivery.
In the majority of cases, the risks of immediate delivery and prematurity outweigh the risks of prolonged ROM and potential vertical transmission, especially in those with an undetectable viral load, and, therefore, adopting a conservative approach is reasonable.

Women who present in labour who are known to be HIV positive but who have not had any antenatal treatment.

If the membranes are intact, blood will be taken for CD4 count, viral load and a resistance Test prior to any treatment being prescribed.

Zidovudine (AZT) will be prescribed and given intravenously during delivery in addition to oral doses of Zidovudine /Lamivudine combination (Combivir 1 tablet bd) and raltegravir (400mgs bd) and a stat dose of Nevirapine 200mgs. Double dose Tenofovir would also be considered in pre-term labour in order to load the baby.

The woman should be advised to continue ART life-long after commencing treatment in pregnancy. The ongoing regime will be agreed with the HIV team.

If the woman presents between 32 weeks gestation and term in labour and labour progresses caesarean section will be considered.

If the woman presents at less than 32 weeks in labour, intravenous antibiotics, tocolysis and steroids to aid fetal lung maturity will be prescribed, if labour progresses, a Caesarean section will be considered. The neonatal team will prescribe triple therapy for the baby.

If the membranes are ruptured, blood will be taken **for baseline CD4 count**, viral load and resistance test.
- Intravenous Zidovudine (AZT) will be prescribed and commenced
- Prescribe oral doses of Zidovudine /Lamivudine combination (Combivir 1 tablet bd) and raltegravir (400mgs bd) and a stat dose of Nevirapine 200mgs as soon as possible prior to birth.

The woman should be advised to continue ART life-long after commencing treatment in pregnancy. The ongoing regime will be agreed with the HIV team

If labour progresses spontaneous vaginal delivery with antibiotics may be considered. Triple therapy will be prescribed for the baby.

If there is no evidence of labour, caesarean section with antibiotic cover will be considered.
Triple Therapy will be prescribed for the baby.

Immediate care following birth

- The baby will be bathed immediately after delivery to clear all maternal blood and secretions unless it is clinically inadvisable.
- Skin to skin contact will be offered.
- If intra-muscular vitamin K is indicated/ chosen, ensure the baby has first been bathed,
- and swab the skin with alcohol prior to giving the injection.
- Women will be advised strongly to avoid breast-feeding and use formula feed instead as
- breast feeding increases the risk of HIV transmission.

6.12 Postnatal management - General care of the neonate

The SM will have discussed with the woman, during the antenatal period, that artificial feeding is the preferred method of feeding the baby, because breast feeding increases the risk of HIV transmission to the baby and so mothers are advised not to breast feed. (Dunn DT et al 1992)

The safest way to feed infants born to women with HIV is to formula feed and not to breast-feed irrespective of whether or not the mother has taken anti-retroviral therapy during the pregnancy, irrespective of her previous or current CD4 count and HIV viral load, and irrespective of whether or not she is still continuing on antiretroviral therapy.

Recent studies found that mixed feeding carried the greatest risk of vertical transmission because the introduction of other foods including formula feed increases the permeability of the gut therefore resulting in increased rates of acquired infection for the infant.

There may be a range of cultural issues if the woman is not seen to be breast feeding. Therefore additional support may be required.

Women who are virologically suppressed on ART with good adherence and who choose to breast feed should be supported but informed about the low risk of transmission of HIV through breastfeeding and the requirement for extra maternal and neonatal clinical monitoring. She and her baby should be reviewed in clinic for HIV RNA viral load testing during and for 2 months after stopping breastfeeding.

The risk of transmission increases according to the duration of breast feeding, women should be advised to breastfeed for as short a time as possible, to exclusively breast feed for the first 6 months and to stop feeding if they have a breast infection/mastitis or if they or their baby develops any gastrointestinal symptoms.

The baby's drug regime will have been documented on the Neonatal alert form. The drugs cannot be prescribed until delivery when the weight of the baby is known. (See Neonatal Guideline Infants of HIV Positive mothers).

All babies born to HIV mothers require 4 weeks of prophylactic antiretrovirals following birth, commenced within 4 hours of birth.

It is important that the medication is given exactly at the times prescribed and that no dose is missed. The timings of the drug administration need to be acceptable to the mother in order to maximise compliance and to minimise the risk that the HIV virus may become resistant and more difficult to treat.

Before discharge the mother:

- Needs to be aware of the importance of drug adherence
- Is competent in administering medication.
- Has a 4 week supply of treatment.
- Has contact details for the HIV specialist nurse
- Is given details for follow-up blood test appointments for baby at 6 weeks and 3 months of age
- Babies born to HIV positive women may have all vaccinations except BCG. The BCG vaccination must be delayed until the result of the 12 week HIV RNA confirms that HIV pro-viral DNA is not detectable.

Detecting maternal to child transmission (MTCT)

Ideally within the first 48 hours following delivery blood samples will be taken from:

Mother – (4ml EDTA purple bottle sample) for HIV pro-viral DNA PCR and HIV RNA.
Baby – (2mls of blood in an EDTA 4ml purple cap bottle) for HIV pro-viral PCR assay by a member of the Neonatal Team - **Do not send cord blood samples**
They will be on separate forms and sent to the microbiology lab labelled with both the mother's and baby's details on the forms and the bottles. The samples need 'Risk of Infection' stickers applied to BOTH bottles and forms and must be taken by a porter, as soon as possible, to the Pathology Department.

Further samples will be repeated at 4 to 6 weeks of age and again at 12 weeks of age. A final HIV antibody test will be carried out at between 18-24 months. Over 90% of babies who are infected with HIV are positive by 4 to 6 weeks of age.

The Midwife will ensure that the baby has had appointments booked for repeat blood tests at 6 weeks and 12 weeks and the details forwarded to the Lead Consultant Neonatologist for Infectious Disease in Pregnancy prior to discharge from hospital.

Postnatal care of the woman
On transfer to the postnatal ward ensure there is a sufficient supply for the woman to continue her ART.

HIV women with a CD4 count <200 must not be given MMR if they are susceptible to Rubella as it is a live vaccine. Immunisation will be administered via the HIV specialist team when the CD4 count is >200.

Contraception and future pregnancies will be discussed prior to discharge home.

Some anti-retroviral drugs may reduce the efficacy of contraceptives. Discuss any planned new contraception with the HIV team or check for possible interactions on: Liverpool HIV Interactions (hiv-druginteractions.org)

The woman should be followed up as an outpatient with the HIV team.

Protection of attendants (medical/nursing etc)

Blood borne viruses can be transmitted by inoculation of blood and other body fluids from infected. patients. Precautions must be taken to protect staff and patients from this risk, while ensuring that infected patients receive the treatment and care they need. For this reason, the Trust has adopted the policy of taking 'standard precautions' when handling blood and body fluids.

The key to preventing transmission of blood-borne viruses (BBVs) is the strict observance of infection. prevention and control measures which treat all blood, body fluids and body tissues from all patients as potentially infectious at all times.

With increasing prevalence of blood borne viruses it is dangerous to assume that only certain groups are likely to be infected. Standard precautions should be followed with all patients (see Standard Precautions Policy).

Needlestick injury or other significant exposure to blood or body fluids e.g. splash of blood to mucous membranes (see Trust Needlestick policy).

7.0 Screening Failsafes for Infectious Diseases Screening

Each week the SM runs a report to identify all women booked from the MIS.
The microbiology lab sends the SM a weekly report of all the antenatal samples received.
The SM cross checks both list to ensure that:
All women who booked during that week have had screening tests performed and a complete set of results.

The list also identifies:
- All the screen positives
- If any tests have been omitted/declined in order to ensure timely repeat screening is re-offered
- If any samples have been rejected and a repeat required.

All women with positive screening results are put onto individual screening databases, which enable an audit of the screening programme and outcome data for each of the conditions.

8 .0 Missed Screening

Safety concerns and incidents in screening services need special attention because of the characteristics of screening. Staff should be encouraged to report quality concerns so that action is taken to reduce and improve the service.

Screening safety incidents include:
- Any unintended or unexpected incident, act of commission or acts of omission that occur in the delivery or screening that could have or did lead to harm.
- Harm or risk of harm if the person eligible for screening are not offered screening.

Serious Incidents
- Where individuals, public or staff would suffer avoidable harm or death if the root cause is unresolved.
- The likelihood of significant damage to the reputation of the organization involved.

In the event of a missed screen refer to the Public Health England (PHE) Guidance 'Managing Safety Incidents in NHS Screening Programmes' published 2015, updated 14th July 2023.

- Report the incident on 'Datix', the Trust incident reporting system.
- Inform the screening midwife.
- The Screening Midwife will complete a Screening Incident Assessment Form (SIAF) to collect information on the suspected incident.
- The SIAF will be sent to the PHE Screening Quality Assurance Service and the Screening and Immunisation Team for North Midlands (Shropshire and Staffordshire)
- The incident will be reviewed by PHE, QA to distinguish whether it is a 'screening safety incident' or a 'serious incident'.
- The incident will be reviewed at the weekly 'Maternity Risk Meeting'.
- The incident investigation will follow the Trust Risk Management Policy and PHE Guidance.

A duty of candour should be completed for any individual affected/impacted by a screening safety incident.

9.0 Training

Training and updating will be delivered in accordance with the SATH Maternity Services Training Needs Analysis. The current programme of the training that is being provided are kept by the Lead Midwife for Education.

10.0 Monitoring and audit

The SM collates data required to monitor and provide the assurance of the delivery of the local screening programmes in line with National Standards and recommendations.

All the Screening Programme Standards are audited annually. An annual Screening Report is submitted to the Regional Screening Team, local commissioners and the Trust. Actions are developed and monitored through the Programme Board.

Data that is submitted by the SM includes:

Quarterly National Screening Key Performance Indicators (KPI's) for the Infectious Disease Screening Programme to PHE.

ID1 –HIV coverage
The number of eligible women tested for HIV
Acceptable level ≥ 95.0%
Achievable level ≥ 99.0%

- Data for the National Surveillance Study for HIV in Pregnancy and Childhood (NSHPC).

The Local Screening programmes are Quality Assured through an external QA Assessment from PHE. The SM coordinates the data collection and submission in preparation for the assessments.

11. References

- British HIV Association and Children's HIV Association(BHIVA), Guidelines for the management of HIV infection in pregnancy and postpartum. 2018 (2020 third interim update)
- NHS England Infectious Diseases in Pregnancy Screening programme Standards Published 1st September 2010 , updated 7th February 2023
- PHE NHS Infectious Diseases in Pregnancy Screening Programme Handbook 2016-2017 (updated April 2018)
- PHE NHS Public Health Functions Agreement: Service Specification No.15 NHS Infectious Diseases Screening in Pregnancy Screening Programme
- Public Health England (PHE) Guidance 'Managing Safety Incidents in NHS Screening Programmes' published 2015, updated 14th July 2023
- ISOS HIV Report 2022 , updated 22nd June 2023
- PHE Infectious Diseases in pregnancy screening(IDPS) Programme overview. January 2015, updated 27th July 2021

	Community Midwife
	Other specialist – Sexual Health
	Screening Midwife

Appendix 1

Antenatal Care Pathway
HIV screening

At Booking, from 6 weeks – All women are offered and recommended screening for HIV
Written and verbal information is given, including the NSC Leaflet 'Screening Tests for you and your baby'.
Screening is discussed and the offer documented in the Maternity Information System

Screening Accepted
Antenatal Booking Blood form completed.
Bloods taken with consent, ideally within the 1st trimester
Document when bloods taken in MIS
The woman is informed how she will receive her result

Screening Declined
Document the decision in the MIS
Advise that the screening midwife will discuss decision further at a face-to-face meeting before 20 wks

Negative Result
Result available on lab electronic reporting system
Results documented in the MIS
Woman informed of her result at her next antenatal appointment

Positive Result
The SM is informed by the microbiologist within 3 working days of the test being received by the lab.
The result is documented in the MIS
SM checks if the woman is known/ new diagnosis.

Known HIV Positive

If the woman is known the SM contacts the HIV Specialst Nurse.
An appointment to attend the next Consultant Clinic specifically for infectious diseases within 10 days of the result being reported is sent to the woman.

Newly diagnosed / unknown
The SM contacts the HIV nurse specialist to arrange a joint appointment with the woman
The woman is phoned and an appointment given within 10 days of the result being reported
The result is given to the woman on her own at a face to face appointment with the SM and HIV specialist nurse.
Only with consent is information shared with her partner and results documented in the MIS.
A follow up appointment is given for Sexual Health where further bloods are taken with consent to confirm infection and to check viral load
A follow up appointment is given for the Consultant Clinic to discuss and plan her pregnancy care.

Ongoing Management
A management plan will be discussed and made with the woman during her visit to the Consultant Clinic.
The pregnancy care will be jointly managed by the obstetric consultant, Sexual Health, the SM and the neonatologist, which is discussed at the infectious disease MDT meeting.
A neonatal alert will be completed on the MIS and the current 'Management Plan' provided by Sexual Health which gives the most current blood results and medication will also be scanned onto the MIS