Syphilis in Pregnancy

University Hospitals of Leicester NHS Trust

Trust ref:C6/2024

Contents

1. Introduction and Who Guideline applies to 1
2. ANTENATAL SCREENING OF ALL PREGNANT WOMEN: 3
2.1 Accepted screening 3
2.2 Screening declined 3
2.3 High-risk categories 3
3. Screening results; 4
3.1 Negative results for Syphilis 4
3.2 “Equivocal” or inconclusive results for Syphilis screening. 4
3.3 Positive results for Syphilis 4
Flowchart 2: Paediatric exposure to maternal syphilis 7
4. Education and Training 8
5. Monitoring Compliance 8
6. Supporting References 8
7. Key Words 9
Appendix 1: Positive syphilis serology in pregnancy care plan 10
Appendix 2: Neonatal care plan 12
Appendix 3: Birth plan template 13
Appendix 4: Checklist for unbooked women presenting in labour or at advanced gestation 15

1. Introduction and Who Guideline applies to

This guideline is intended for use by all medical, midwifery and nursing staff working in both Primary and Secondary care settings involved in the care of pregnant women, people and their families throughout screening and diagnosis of Syphilis in pregnancy.

Syphilis is a bacterial infection caused by *Treponema pallidum.* Congenital syphilis can occur when maternal syphilis infection is transmitted transplacentally to the unborn baby. It is usually transmitted transplacentally in the second or third trimester, although it can occur at any gestation. Syphilis in pregnancy can increase the risk of miscarriage, premature birth, low birth weight, stillbirth (occurs in 30-40% of congenital syphilis cases) and hydrops fetalis. The risk of vertical transmission is greatest in: - untreated infection; early disease; high VDRL/RPR titres; maternal co-infection with HIV; and where the mother has been re-infected during pregnancy.

Approximately two-thirds of babies with Congenital Syphilis will be asymptomatic at birth but most will develop symptoms by 5 weeks of age. Untreated CS can result in physical and neurological impairments affecting the child’s bones, teeth, vision and hearing.

Between 1 April 2020 and 31 March 2021, 650000 pregnant women in England underwent screening for syphilis through the antenatal screening pathway. 1.59/1000 tested patients received a positive result for syphilis. 43% required treatment in pregnancy. There were 5 infants with confirmed congenital syphilis born to women or people with screen positive results requiring treatment.

Background:

The document is based on the following documents (for hyperlinks please see references):

- British Association of Sexual Health and HIV (BASHH) UK national guidelines on the management of syphilis 2015
- Managing Syphilis Infection in Pregnancy. NHS England (Published 3 April 2023)
- ISOSS Syphilis Report 2022. (Updated 16 November 2022)
- NHS Infectious Diseases in Pregnancy Screening Programme Handbook 2016-2017

Practitioners should refer to the full UK National Guidelines, including any updated guidance, for detailed information on clinical management and seek specialist advice as required.

Effective assessment and management of syphilis in pregnancy and any baby born to a syphilis positive mother should consist of a multi-disciplinary approach with joint management, involving Midwifery, Obstetrics, Genital-Urinary Medicine, Paediatrics, Pharmacy and Laboratory services. This requires adequate information flows between the disciplines to facilitate optimum management.

These care pathways have been developed by the Multi-disciplinary Sexual Health Group to provide guidance for Maternity Unit staff involved in the care of pregnant women, people and their families with blood borne infections. The members of the Sexual Health Group are:

- Consultant Physician Genito-Urinary Medicine
- Consultant Paediatrician
- Fetal and Maternal Medicine Consultant
- Consultant Obstetrician
- Consultant – Infectious Diseases
- Specialist Midwives
- Specialist Paediatric Nurse
- Antenatal Screening Co-ordinator
- Pharmacist

There is a designated lead for antenatal screening for the UHL maternity service (Senior Midwife for Antenatal Services and Community), whose role it is to ensure appropriate processes are in place to offer pregnant women and people appropriate screening tests for blood borne infections in pregnancy as per National Screening Committee Guidance.

The following care pathways are available in this document:

- Women's Services: Syphilis serology positive pregnant women and people. Antenatal & Postnatal management.
- Children's Services: Paediatric exposure to maternal syphilis.

In addition there are 3 care plans that are used by the Sexual Health Group. These care plans have been reproduced as part of this document for information, but may be subject to changes by the Sexual Health Group. These care plans are to be commenced by the Sexual Health Group.

Perinatal Blood Borne Infection Care Plans:

- Maternal syphilis Infection

Communication:

For any case that triggers the use of these care plans all relevant health professionals involved in the pregnant woman's or person's care should be contacted and informed.

Related documents:

- **Booking Bloods and Urine Test UHL Obstetric Guideline**
- **Hepatitis B and Syphilis Screening in Pregnancy UHL Obstetric Guideline**
- **Hepatitis C Screening in Pregnancy UHL Obstetric Guideline**
- **Missed Antenatal Appointments UHL Obstetric Guideline**

2. ANTENATAL SCREENING OF ALL PREGNANT WOMEN AND PEOPLE:

All pregnant women and people should be offered screening for Syphilis infection by their midwife, ideally at booking or antenatally to provide the most appropriate clinical care and minimise risk of transmission to the baby; if screening is missed antenatally, please offer intrapartum or postpartum and follow up accordingly

This test should be considered an opt-out test, rather than an opt-in test:

2.1 Accepted screening

If screening is accepted, this must be documented within the Hand-Held Notes (Personal Maternity Record) by the person consenting the person for the test.

For full details of accurate completion of screening request forms and the management of rejected samples refer to the UHL booking bloods and urine tests guideline.

2.2 Screening declined

If screening is declined, the person should be informed that they will be contacted by a specialist midwife at around 20 weeks to re-offer Infectious Diseases Screening.
All who decline screening should have a form completed with documentation of their choice and submitted to the Lab. This should be documented in the maternity health record.
If screening is further declined, the reason should be documented in the Maternity Health records.

2.3 High-risk categories

Consider offering repeat screening during pregnancy if test negative in 1st trimester, to exclude seroconversion, in those who fit the high-risk categories defined below and have a continuing risk exposure, including women and people diagnosed with a sexually transmitted infection in pregnancy.

People at High risk:

- Have unprotected sex (without a condom)with a new partner during the pregnancy
- Have a sexual partner(s) who have tested positive for syphilis
- Direct contact with ulcers or weeping rashes of a person who is syphilis positive

3. Screening results;

All screening tests for Syphilis in pregnancy must be seen by a qualified member of staff, communicated to the woman and documented within the Maternity Health Record.

3.1 Negative results for Syphilis

- The Community Midwife or Obstetrician who sees the pregnant woman or person at the next antenatal visit (at 14 -18 weeks gestation if possible), should check that the results of the Syphilis screening test are available, communicate the result to the pregnant woman or person and document the result in the Maternity Health Record ideally on the Maternity IT System.

- If the result is missing or not available, the health professional should check where the result is, and as a last resort consider repeat the screening test

- If the result is inconclusive, repeat the screening test, and discuss with virologist

- If the result is negative but the pregnant woman or person is from the "high risk" (as detailed above), offer screening again at 28 weeks.

3.2 "Equivocal" or inconclusive results for Syphilis screening.

- Occasionally the laboratory will find that the results for syphilis screening are inconclusive. This is reported as an equivocal result.

- Another blood sample will be required by the Lab to do further testing to exclude syphilis infection. Reassurance should be given to the pregnant women or person in this circumstance that syphilis infection is extremely unlikely but further testing should be performed as a precaution.

3.3 Positive results for Syphilis

- Positive results are e-mailed directly to the Midwife Specialist for Blood Borne Infections from the screening laboratory.

- The Midwife Specialist for Blood Borne Infections will contact the pregnant woman or person and arrange an appointment to give them the result within 5 working days.

- The Specialist Midwife will ensure that household contacts and partners are referred to their GP for testing as required.

- For further advice on the management of positive results for Syphilis refer to the relevant pathways and care plans below.

- Women and people with a positive result who do not have an on-going pregnancy should still be seen by the specialist midwife and their results given and appropriate follow up arranged.

- If a pregnant woman or person presents late/unbooked in labour, please assess risk-factors and document a plan of care. All blood tests to be offered and results should be documented with 24 hours of the sample being taken or clear plan made to follow up the results (see Appendix1)

For further advice on the management of positive results for Syphilis infection in pregnancy refer to the following flowcharts below.

Women's, Perinatal & Sexual Health Services
Blood Borne Infection Flow Chart

PREGNANT WOMEN AND PEOPLE WITH POSITIVE SYPHILIS SEROLOGY IN PREGNANCY

Positive results will be communicated by the Lab.

↓

Positive results are e-mailed from the Lab and a hard copy sent to the Specialist BBI Midwives

↓

Specialist Midwives to arrange a timely referral to Sexual Health Teams with consent from the patient

↓

Patient appointment for a Sexual Health Consultant for assessment/history
Treatment commenced *(if necessary)*
(See BASHH Guidelines)
Sexual Health will refer to Health Advisor for contact tracing and support

↓

Sexual Health to complete any required follow up blood tests accordingly following treatment initiated.

↓

If patient does not attend, Sexual Health to inform Specialist BBI Midwives to arrange repeat blood tests.
The results will be reported back to Sexual Health Team

↓

Sexual Health Consultant to complete Paediatric Syphilis Summary Template

↓

Specialist Midwife will arrange appointment within 5 days to inform client of positive result, and offer written information

Contact numbers and support provided

↓

Obtain confirmatory blood sample

→

Where Syphilis is treated in this pregnancy particularly when this is early infection.

- Maternal referral to Fetal Medicine is recommended when 26 weeks gestation has been reached prior to treatment
- *Fetal assessment will help in planning the anti-partum care as well as neonatal treatment*

↓

Inform with clients permission which Health Professionals will be involved with planning her care.

↓

Specialist Midwife to send Paediatric Alert form to:

-Neonatal Team
- Baby Care Assistants
- IT Systems
- Hand held notes

→

** Refer to the Paediatric Syphilis Summary Template for further information and guidance as per Care plan*

↓

Postnatal routine care of mother

↓

Baby Care Assistants to notify Specialist BBI Midwives and Paediatric Specialist Nurse/Dr Bandi of the delivery according to follow up as required.

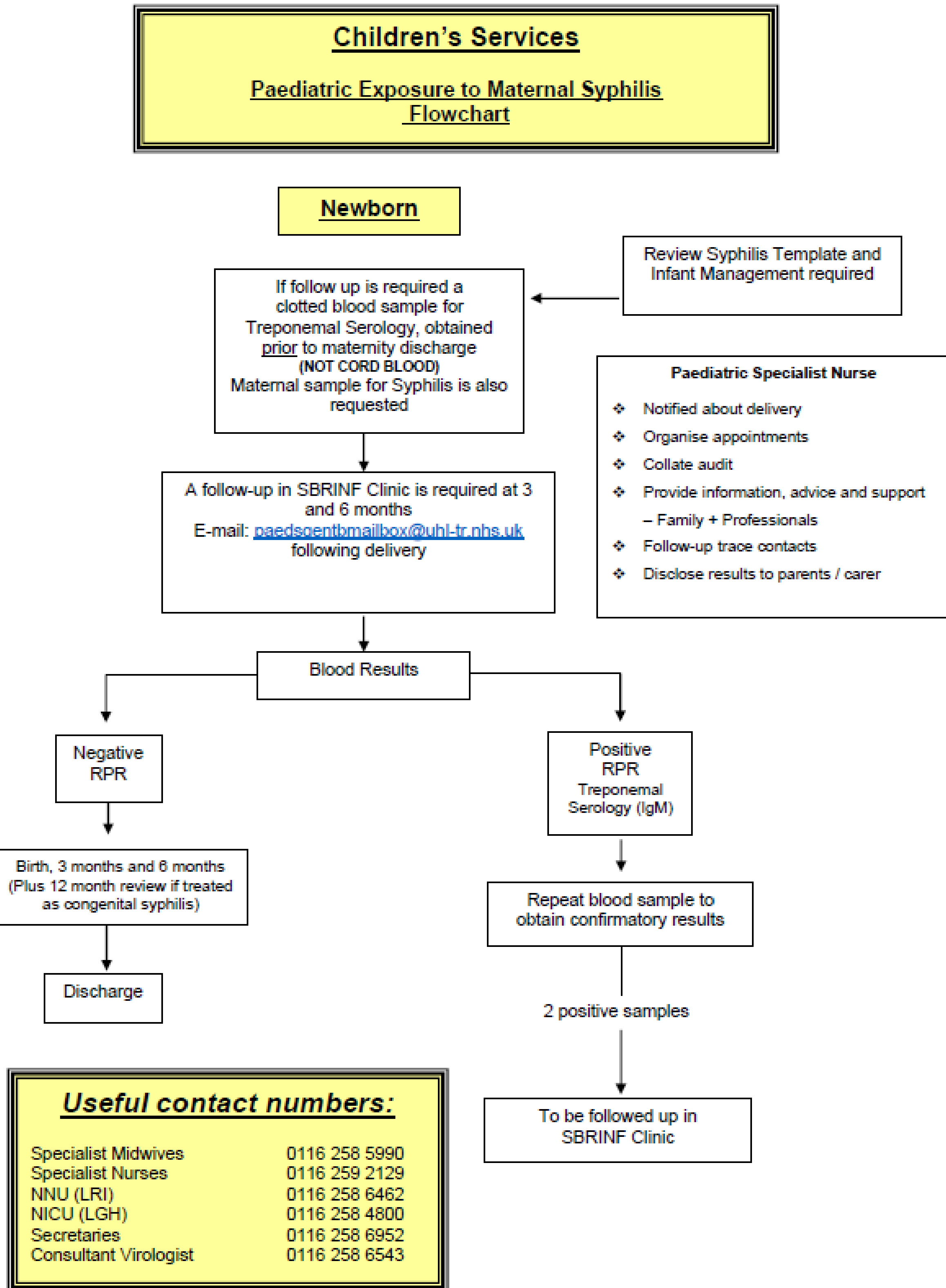
↓

Paediatric Specialist Nurse to contact the patient in relation to a follow up of the baby. *Please refer to Children's Services Paediatric Exposure to Maternal Syphilis Flowchart*

Useful contact numbers:

Specialist Midwives	258 5990
Spec Paed Nurse –	07921 545470
Virology 258 6543	
Haymarket Health	464 7860
	464 9104

Flowchart 2: Paediatric exposure to maternal syphilis



4. Education and Training

Antenatal Screening Session on Mandatory Training Day

5. Monitoring Compliance

What will be measured to monitor compliance	How will compliance be monitored	Monitoring Lead	Frequency	Reporting arrangements
All women offered screening for Syphilis and documented in the health record	Antenatal screening KPI's	AN screening co-ordinator & specialist midwives	Quarterly	NSC
All women that consent to Syphilis screening receive a conclusive result or are informed if the sample is not processed and repeat screening is offered even if they miscarry	Antenatal screening KPI's	AN screening co-ordinator and specialist midwives	Quarterly	NSC
All high risk results telephoned to the Specialist Midwife	Monthly failsafe checking between the Lab, antenatal screening and specialist midwifery	AN screening co-ordinator and specialist midwives	Monthly	Internal database maintained
All women who screen positive for Syphilis seen by the Specialist Midwife, results reviewed and the woman informed of the positive result within 5 working days of the result being available	Annual IDPS data return to PHE	AN screening co-ordinator and specialist midwives	Annually	NSC
All positive results are clearly documented in the woman's records	Screening audits for QA review	AN screening co-ordinator and specialist midwives	Triennially	PHE QA team
All notes of woman with a positive result has an alert sticker on the front cover of the hospital notes	Screening audits for QA review	AN screening co-ordinator and specialist midwives	Triennially	PHE QA team
All women with a positive result have a Syphilis Care Plan completed and this is filed in the health record	Screening audits for QA review	AN screening co-ordinator and specialist midwives	Triennially	PHE QA team

6. Supporting References

World Health Organization: 31 May 2023. Syphilis

British Association of Sexual Health and HIV (BASHH) UK national guidelines on the management of syphilis 2015

https://www.bashhguidelines.org/media/1148/uk-syphilis-guidelines-2015.pdf

Managing Syphilis Infection in Pregnancy. NHS England (Published 3 April 2023)

https://www.gov.uk/government/publications/syphilis-managing-infection-in-pregnancy/managing-syphilis-infection-in-pregnancy#laboratory-informs-the-antenatal-screening-team-of-a-confirmed-screen-positive-syphilis-result

ISOSS Syphilis Report 2022. (Updated 16 November 2022)

ISOSS syphilis report 2022 - GOV.UK (www.gov.uk)

NHS Infectious Diseases in Pregnancy Screening Programme Handbook 2016-2017

NHS Infectious Diseases in Pregnancy Screening Programme Handbook 2016 2017 (publishing.service.gov.uk)

7. Key Words

Congenital syphilis, Sexually transmitted infection

The Trust recognises the diversity of the local community it serves. Our aim therefore is to provide a safe environment free from discrimination and treat all individuals fairly with dignity and appropriately according to their needs.
As part of its development, this policy and its impact on equality have been reviewed and no detriment was identified.

CONTACT AND REVIEW DETAILS			
Guideline Lead (Name and Title) Dr S Ndoro, Consultant Physician Genito-Urinary Medicine		**Executive Lead** Chief Nurse	
Details of Changes made during review:			
Date	**Issue Number**	**Reviewed By**	**Description Of Changes (If Any)**
	Initial document when combined with C63/2011 written and reviewed by	Dr S Ndoro, Consultant Physician Genito-Urinary Medicine Dr Bandi, Consultant Paediatrician Dr M Khare - Fetal and Maternal Medicine Consultant Dr M Finney, Consultant Obstetrician L Boon - Specialist Midwife M Jethwa – Specialist Midwife H Cadman-Specialist Paediatric Nurse H Ulyett, Antenatal Screening Co-ordinator R Meakin, Pharmacist	
September 2023	1	Dr S Ndoro, Consultant Physician Genito-Urinary Medicine Dr Bandi, Consultant Paediatrician Dr M Finney, Consultant Obstetrician L Boon - Specialist Midwife M Jethwa – Specialist Midwife H Cadman-Specialist Paediatric Nurse	New stand-alone guideline Introduction, scope & background added. Positive results distributed from Consultant Virologist added as first step in positive serology management, then all referred to specialist RM Referral for positive results time frame of 5 days added Specified that where Syphilis is treated in this pregnancy particularly when this is early infection. Maternal referral to Fetal Medicine is recommended when 26 weeks gestation has been reached prior to treatment Actions for non attenders added Baby Care Assistants to notify Specialist BBI Midwives and Paediatric Specialist Nurse/Dr Bandi of the delivery according to follow up as required Updated contact email addresses and telephone numbers.

Appendix 1: Positive syphilis serology in pregnancy care plan

Perinatal Blood Borne Infection Care Plan

Women with Positive Syphilis Serology in Pregnancy Care Plan

UNIVERSITY HOSPITALS OF LEICESTER NHS TRUST

Directorate of Women's, Perinatal & Sexual Health Services

Patient Addressograph

☐ Leicester Royal Infirmary

☐ Leicester General Hospital

EDD ☐☐/☐☐/☐☐

Gravida __________ Parity __________

Blood Group ______________

Previous Blood Transfusion ☐ Yes ☐ No

Co-infection: Hep C/Hep B/HIV (please circle)

Interpreter Required Y ☐ N ☐

Language Spoken ______________________

SPECIALIST CARE TEAM

Specialists	Name	Contact Number
Community Midwife		
Specialist Midwives		
General Practitioner		
Obstetrician		
Consultant Paediatrician		
Paediatric Specialist Nurse		
Sexual Health Physician		
Pharmacist		

Original Test Date ☐☐/☐☐/☐☐ (see filed report in maternity notes)

Date result received ☐☐/☐☐/☐☐

Date of result given ☐☐/☐☐/☐☐ Gestation ☐ ☐ Weeks

Confirmatory Test Date ☐☐/☐☐/☐☐

Patient seen within 5 days Yes ☐ / No ☐ *________________________________

Aware of diagnosis prior to pregnancy ☐ Diagnosis given during this pregnancy ☐

*Previous treatment for Syphilis ☐ Yes *____________________________________ ☐ No

*My partner is aware of my positive serology ☐ ☐ Not aware * ______________________________

S:\Harjinder Panaser\Specialist Midwives & Nurses\Louise Boon & Maxine Jethwa - BBI\Care Plans & Flowcharts\2023 Updated Careplans & Flowcharts\Syphilis\Syphilis\Perinatal Blood Bourne Infection Care Plan Syphilis 21.07.23.doc 1

Perinatal Blood Borne Infection Care Plan

Women with Positive Syphilis Serology in Pregnancy Care Plan

Antepartum Care Plan

*Topics Discussed / Actions	Sign & Date
☐ What is Syphilis? (primary, secondary, early latent, late latent)	____________
☐ Confirmatory testing, further blood investigations with consent	____________
☐ Identification of contacts and testing required/refer to Sexual Health as required*	____________
☐ Identify risk factors	____________
☐ Methods of transmission	____________
☐ Prevention Education (safe sex/contraception)	____________
Avoid sexual contact during and following treatment as per sexual health guidance	
☐ Antenatal / Intrapartum / Postnatal aspects to care discussed	____________
☐ Neonatal Plan made (refer to Syphilis Birth Plan Template)	____________
☐ Written information offered and provided – leaflet given on: __________________	____________

*Comments:

____

____

____

*Antenatal Checklist		Sign & Date
Referral made to Sexual Health	☐ Yes ☐ No	____________
Appointment time and date: ____		
Partner testing advised and referral made to Sexual Health	☐ Yes ☐ No	____________
Other "at risk" children identified, and referral made to Paed Spec Nurse	☐ Yes ☐ No	____________
Paediatric alert and Syphilis summary template sent & on IT system	☐ Yes	____________
BBI appointment made to discuss plan of care accordingly at 22-25wks	☐ Yes ☐ No	____________
GP Informed by letter with consent	☐ Yes ☐ No	____________
Referral made to Fetal Medicine	☐ Yes ☐ No	____________

(If a referral or transfer has been made to Fetal Medicine, please alert the BBI Team)

In certain circumstances i.e. unusual serology/or if amniocentesis is required seek specialist advice

***Individualised Plan**

____

____

Signature: ________________________ Print Name: ____________________Date:____________________

S:\Harjinder Panacer\Specialist Midwives & Nurses\Louise Boon & Maxine Jethwa - BBI\Care Plans & Flowcharts\2023 Updated Careplans & Flowcharts\Syphilis\Syphilis\Perinatal Blood Bourne Infection Care Plan Syphilis 25.08.23.doc

2

Appendix 2: Neonatal care plan

Perinatal Blood Borne Infection Care Plan

Women with Positive Syphilis Serology in Pregnancy Care Plan

Neonatal Care Plan

Paediatric Responsibility Following Delivery

Syphilis – Infant Management

☐ **Mother adequately treated prior to the pregnancy with no risk of Congenital Syphilis**

- At birth: infant requires no additional physical examination or tests for Syphilis
- Follow-up: Infant needs no follow-up for Syphilis

☐ **Mother treated for Syphilis during this pregnancy with low risk of Congenital Syphilis**

- At birth: Assess infant for signs of Congenital Syphilis. If no concerns perform routine Syphilis screening on infant venous (not cord) serum sample, request 'Syphilis screen+ RPR+ Treponemal IgM'.
- Maternal sample required for Syphilis Serology in parallel with Neonatal Sample
- Follow-up: Send a referral to Dr Bandi (SBRINF clinic) – 3 month follow up is required

☐ **Significant risk of Congenital Syphilis**

- At birth: Assess infant for signs of Congenital Syphilis (see 2015 BASHH guidelines). Request 'Syphilis Screen+ RPR+ Treponemal IgM' plus FBC, U&E, LFT, ALT. Lumbar puncture (request WBC, protein, RPR, TPPA) and further tests as clinically indicated; long bone and chest X-rays, ophthalmology and audiology reviews and (if available) samples from lesions for dark ground microscopy and PCR for T. Pallidum.
- Treatment for Congenital Syphilis: Benzyl Penicillin Sodium – 60-90 mg/kg daily IV (in divided doses given as) –
  - 30 mg/kg 12 hourly in the first seven days of life and then 8 hourly on days 8, 9 & 10 which will be a total of 10 days.
- Maternal sample required for Syphilis Serology in parallel with Neonatal Sample
- Send a referral letter to Dr Bandi (SBRINF) – 1 month follow up is required

Newborn Checklist

- Inform Specialist Midwife of Baby's birth (Ext: 15990)
- Inform Paediatric Specialist Nurse of Baby's birth by E-mail
- Before discharge ensure blood tests that are required have been sent
- Discharge summary letter to Consultant Paediatrician (Dr Bandi)

Appendix 3: Birth plan template

SYPHILIS PREGNANCY BIRTH PLAN TEMPLATE For LLR Secretaries Please email completed template to Maxine.Jethwa@nhs.net and L.boon@nhs.net			
PATIENT DETAILS			
Mother's name		**Mother's hospital number**	
Mother's address		**Mother's DOB**	
		Estimated date of delivery	
Mother's phone numbers:			

CURRENT SYPHILIS SEROLOGY	
PREVIOUS SYPHILIS SEROLOGY AND TREATMENT	

SYPHILIS –INFANT MANAGEMENT (delete as appropriate)

Mother adequately treated prior to pregnancy with no risk of Congenital Syphilis
• **At birth**: infant requires no additional physical examination or tests for syphilis • **Follow-up**: infant needs no follow-up for syphilis

Mother treated for syphilis during this pregnancy with low risk of Congenital Syphilis
• **At birth**: assess infant for signs of congenital syphilis as per current BASSH Guidelines **If no concerns** **1.** Perform routine syphilis screening on infant (not cord) serum sample, request **'Syphilis screen + RPR+ Treponemal IgM'** **2.** Maternal sample required for syphilis serology **3.** Follow up: Send referral to **Dr Bandi (SBRINF)** for 3 month follow up

Significant risk of Congenital Syphilis

- **At birth:** assess infant for signs of congenital syphilis as per current BASSH Guidelines.

1. Perform routine syphilis screening on infant (not cord) serum sample, request **'Syphilis screen + RPR+ Treponemal IgM' and FBC, U&E, LFT, ALT**

2. Lumbar puncture, request WBC, protein, RPR, TPPA

3. Further tests (if clinically indicated) include long bone and chest x-rays, samples from lesions for (if available) dark ground microscopy and PCR for T. Pallidum

4. Further assessments (if clinically indicated) include ophthalmology and audiology reviews

5. Treatment for congenital syphilis Benzyl Penicillin Sodium- 60-90mg/kg daily IV (in divided doses given as below

30mg/kg 12 hourly in the first seven days of life and then 8 hourly on days 8,9 and 10 which will be a total on 10 days

6. Send a referral letter to Dr Bandi (SBRINF) for 1 month follow up

Other Comments

Sign:………………………………………………………………….(print)……………………………………………………………………..

Date: _ _/_ _/_ _ _ _

Appendix 4: Checklist for unbooked women presenting in labour or at advanced gestation

CHECKLIST FOR UNBOOKED WOMEN presenting in labour or at advanced gestation.

ADDRESSOGRAPH

- Obtain obstetric/medical history, assess risk factors and document a plan of care.
- Appropriately qualified doctor to perform portable ultrasound scan to assess placental localisation and presentation and biometry if possible.
- Consider use of continuous Fetal monitoring in labour.
- Postnatally–
  - commence NEWS chart for baby observations due to the high mortality rate in this group of neonates.
  - All babies born to "unbooked" women should have a paediatric check prior to discharge.
  - Consider any safeguarding concerns.
- **All Blood tests to be offered and taken as follows:**

Blood test required	**Sample bottle**	**Form**	**Sign & date when sample taken**	**Sign and date result received**
FBC	Red EDTA 4.9ml	UHL Combined haematology/pathology		
Group & Save	Red or blue EDTA 7.5ml	UHL Blood transfusion		
HIV point of care test	Point of care test kit on delivery suite	Document in notes if this was offered but declined by patient		
Virology –URGENT **request for HIV, Hep B, Syphilis**	White/black label	UHL virology		
Haemoglobinopathy screening	Purple bottle	Dedicated UHL antenatal family origin questionnaire form – can be accessed on ICE		

PLEASE NOTE - ALL BLOOD RESULTS SHOULD BE DOCUMENTED WITHIN 24 HOURS OF THE SAMPLE BEING TAKEN or a clear plan made to follow up results.