Guideline for the Management of Herpes During Pregnancy

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1.0 Introduction

For simplicity of language, this guideline will use the term 'women' or 'mother' throughout, and this should be taken to include people who do not identify as women but who are pregnant or who have given birth.

Genital herpes is caused by the genital herpes simplex virus (HSV). It is the most common ulcerative sexually transmitted infection in the UK.

The virus can cause severe systemic disease in neonates and the immunosuppressed and it may facilitate HIV transmission. Many HSV infections are subclinical (not detectable), as there are no signs or symptoms of disease.

Diagnosis rates in Barnsley compared to the Yorkshire and Humber region remain low, with a decrease from 148 people in 2019 to 89 people diagnosed in 2021 (HSA 2023).

2.0 Objective

This guideline will guide all maternity health professionals through the process if a pregnant woman is diagnosed with Herpes.

3.0 Scope

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

4.0 Main body of the document

There is no indication for the routine screening of women for Herpes Simplex Virus (HSV) antibodies in pregnancy. Healthcare workers rely on the woman volunteering any information regarding her own and/or partners' history of an HSV infection.

Women whose partners have HSV but are uninfected should be advised to:

- Minimise the risk of infection in pregnancy by using condoms
- Abstain from sexual intercourse during recurrences of the infection
- Avoid oro-genital contact if their partner has oro-labial herpes.

Midwives and Obstetricians should observe for any evidence of HSV lesions as part of the vulval/vaginal examinations performed at any stage of pregnancy and with the onset of labour.

Neonatal herpes is a viral infection caused by either the HSV type 1 (primary) or HSV type 2 (secondary). Both viruses are almost always transmitted through contact with maternal secretions at the time of birth.

If a pregnant woman has the HSV then there is a risk of passing it onto the infant during delivery. Neonatal herpes is a very rare but serious viral infection with a high morbidity and mortality rate (RCOG 2014), which is most commonly acquired at, or near the time of delivery. It is classified into three subgroups in the infant which is dependent upon the site of infection:

- Disease localised to skin, eye and/or mouth. Infants who present with these symptoms alone have the best prognosis and represent approximately 30% of neonatal herpes infections.
- Local central nervous system (CNS) disease (encephalitis alone). With antiviral treatment the mortality is around 6% and neurological morbidity (which may be lifelong) is 70%.
- Disseminated infection with multiple organ involvement. This carries the worse prognosis, even with the appropriate antiviral treatment, mortality is around 30% and 17% have long-term neurological sequelae.

Congenital herpes is extremely rare with an estimated range between 1 in 3000 to 1 in 20,000 live births (2002) and occurs by the transfer of the infection in-utero. Factors which influence the transmission are:

- Whether the infection is a primary (the first outbreak) or secondary infection (pre-existing immunity).
- The presence of transplacental maternal neutralising antibodies (the passing of the antibodies through the placenta, usually during the last 3 months of pregnancy).
- The duration of the rupture of membranes before delivery.
- The use of fetal scalp electrodes or fetal blood sampling during labour.

The greatest risk of congenital herpes occurs if the woman develops a primary infection in the 3rd trimester. If the infection occurs within 6 weeks of delivery viral shredding may be present and the development of protective maternal antibodies will **not** have occurred.

4.1 Antenatal management of the first episode of genital herpes (FEGH) in the 1st and 2nd trimester (up to 27+6 weeks gestation)

There is no evidence to suggest that there is an increased risk of a spontaneous miscarriage with primary herpes in the first trimester.

Women with suspected genital herpes should be referred to Spectrum Community Health **via telephone (0800 055 6442),** where confirmation by polymerase chain reaction (PCR) can be sought. Advice will also include how to manage herpes and offer screening for other sexually transmitted infections.

Pregnant women who are treated for herpes at Spectrum Community Health will have a discussion regarding information sharing with the Antenatal Clinic. The Antenatal Clinic will be informed of the results and treatment via email. The antenatal clinic midwife will then contact the woman to arrange an Obstetric Consultant appointment to discuss further management during her pregnancy.

Treatment includes the use of Aciclovir and even though it is not licensed for use in pregnancy, it is considered safe and has not been associated with an increased incidence of

birth defects. **Please note:** Aciclovir is not licensed for use in pregnancy and the risks and benefits of its use should be discussed with the woman by a member of the obstetric team. Verbal consent must be obtained and the discussion should be fully documented on the EPR.

- Initial treatment – 400mg orally, three times a day (TDS) for 5 days (or intravenous for disseminated HSV)
- Additional treatment – 400mg TDS from 36 weeks gestation. This reduces the risk of HSV lesions at term and the need for an elective caesarean section.

4.2 Antenatal management of FEGH in the 3rd trimester (from 28+0 gestation)

For women presenting with first episode genital herpes in the third trimester, particularly within 6 weeks of expected delivery, type-specific HSV antibody testing (immunoglobulin G [IgG] antibodies to HSV-1 and HSV-2) is advisable. This will be obtained at the appointment at Spectrum Community Health. Clear communication between the Obstetrician and Spectrum Community Health is vital as characterising the infection will influence the advice given regarding mode of delivery and risk of neonatal herpes infection. MDT Communication is via a letter or an email, which is then uploaded to the patient ERS.

It is important to note, that the results can take 2-3 weeks therefore an initial plan of delivery should be devised by the Obstetrician.

A caesarean section at 39 weeks should be the recommended mode of delivery for all women who develop a primary infection in the 3rd trimester.

Treatment is Aciclovir 400mg TDS until delivery.

It is important to note that until the results of the immunoglobulin are received that the HSV should be treated as a primary episode until the results suggest otherwise.

4.3 Management of a primary episode at the onset of labour

Caesarean section should be recommended to women presenting with a primary episode at delivery or within 6 weeks of the expected date of delivery.

The benefits of Caesarean section in reducing neonatal transmission may be reduced if the woman presents with ruptured membranes of greater than 4 hours. Therefore, women should be advised to ring the Barnsley Birthing Centre (BBC) if they suspect Spontaneous Rupture of Membranes (SROM) has occurred.

Caesarean section may be advisable if the membranes have been ruptured for more than 4 hours.

If the woman opts for a vaginal delivery or if a vaginal delivery is unavoidable:

- Intra-venous Aciclovir – 5mg/Kg should be given to the woman 8 hourly
- See the Neonatal Guidelines for the management and treatment for the neonate.

Avoid the following if clinically possible:

- Artificial Rupture of Membranes (ARM)
- Application of a Fetal Scalp Electrode (FSE)
- Fetal Blood Sampling (FBS)
- Instrumental delivery, ventouse and difficult forceps deliveries.

The implications of limited intervention should be explained to the woman when discussing the mode of delivery.

4.4 Management of primary genital herpes and preterm prelabour rupture of membranes (PPROM)

There is limited evidence to inform best obstetric practice when PPROM is complicated by primary HSV infection. Management should be guided by multidisciplinary team discussion involving the obstetricians, neonatologists, Spectrum Community Health Consultant and the woman. It will also depend on the gestation that the PPROM occurred.

If immediate delivery is advocated then the benefits of caesarean section in preventing transmission remain the same. Intravenous Aciclovir should be administered during the time period when urgent Caesarean section is being considered.

If conservative management is appropriate the woman should be given:

- Intravenous Aciclovir 5mg/Kg 8 hourly for at least the first 24 hours
- Oral Aciclovir – 400mg TDS thereafter.

4.5 Management of recurrent episodes of genital herpes during pregnancy

The majority of recurrent episodes of genital herpes are short lasting and can resolve within 7-10 days without anti-viral treatment.

The woman should be advised that the risk of neonatal herpes is low with recurrent infections even if lesions are present at the time of delivery (due to protective maternal antibodies that will have passed to the fetus).

The woman should be given advice regarding supportive treatment with saline bathing, using a warm salt solution (1 teaspoon to every pint of water) and bathing the area using cotton wool and taking paracetamol.

Aciclovir 400mg TDS should be considered from 36 weeks gestation to reduce viral shedding and reoccurrence at delivery. The risks and benefits should be discussed with the woman.

Caesarean section is not recommended if episodes of recurrent genital herpes have occurred during pregnancy. Vaginal delivery should be anticipated in the absence of other obstetric indications for caesarean section.

Routine cultures in late pregnancy, at term or at delivery to determine viral shedding are **not** recommended.

4.6 Management of recurrent episodes of genital herpes at the onset of labour

Management will be based on a full history and clinical assessment to determine whether the outbreak is a primary or recurrent episode. Viral swabs should be taken to aid in the management of the neonate but will not be available in time to influence the management of the labour.

The risk of neonatal infection with a vaginal delivery in the presence of recurrent genital HSV lesions is 0-3%.

In each case the risk to the fetus must be balanced against the risk to the mother of undergoing a caesarean section.

Due to the low risk of transmission, the use of invasive procedures, such as fetal blood sampling (FBS), applications of fetal scalp electrodes (FSE's), artificial rupture of membranes (ARM) and instrumental deliveries, is unlikely to be clinically significant so they may be used if required.

Prolonged Rupture of the Membranes (PROM) in the presence of recurrent HSV lesions should be avoided.

4.7 Management of recurrent herpes and PPROM

A management plan is required following discussion with a multi-disciplinary team including the Obstetricians, Paediatricians and where applicable genitourinary medicine. The risk of infection is small and must be weighed against the risks associated with prematurity when making decisions regarding delivery.

If the gestation is less than 34 weeks, expectant management may be appropriate. The woman will require oral Aciclovir 400mgs three times daily until delivery**.**
If gestation is more than 34 weeks, decisions regarding delivery should be based on the risks associated with prematurity and not by the presence of the recurrent HSV infection.

4.8 Management of HIV positive women with an HSV infection

4.8.1 Primary HSV infection and HIV

The recommendations for this group of women are the same as for women who are **not** HIV positive.

4.8.2 Recurrent HSV infection and HIV

There is some evidence to suggest that women who are HIV positive and who have HSV ulceration at the time of delivery are more likely to transmit HIV infection.
HIV positive women with a history of genital herpes should be treated with oral Aciclovir 400mg three times daily from 32 weeks gestation especially if a vaginal delivery is anticipated.

4.9 Management of the neonate

In **all** cases inform the neonatal team.

Complete a paediatric risk assessment form if the HSV is identified in the antenatal period.

Follow the neonatal guideline:

Neonatal Herpes Simplex Virus Infecti

5.0 Roles and responsibilities

5.1 Midwives

It is the responsibility of the midwife who identifies the herpes infection/result to work in collaboration with the woman and the obstetric team to ensure a management plan is devised to minimise the risk of neonatal transmission of the herpes virus.

5.2 Obstetricians

To devise a management plan that will minimise the risk of the neonatal transmission of the HSV.
To refer to Spectrum Community Health.

5.3 Paediatricians

The neonatologists/paediatricians will risk assess the neonate's exposure and institute a management plan to treat suspected/proven HSV infection. Those infants with proven HSV infection should be discussed with other specialties including local microbiology, tertiary infectious disease department and the regional neonatal unit. These infants will then be followed up by the paediatricians for 2 years.

6.0 Associated documents and references

- Barnsley Hospital Paediatric clinical guideline for Neonatal Herpes Simplex Virus Infection. (2021)

Neonatal Herpes Simplex Virus Infecti

- BASHH. Management of Genital Herpes in Pregnancy. (2014).

RCOG management of genital herpes (2(

Treating herpes - Herpes Viruses Association (2023). [online] at: https://herpes.org.uk/frequently-asked-questions/treating-genital-herpes/

National Library of Medicine. (2022). Congenital Herpes Simplex. [online] at https://www.ncbi.nlm.nih.gov/books/NBK507897/#article-19855.s4

UK Health Security Agency (2023). Summary profile of local authority sexual health – Barnsley. [online] at: https://fingertips.phe.org.uk/static-reports/sexualhealth-reports/2023/E08000016.html?area-name=Barnsley

SPLASH Barnsley 2023-02-01.html

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 infectious diseases 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 infectious diseases 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 procedure should be implemented with due regard to this commitment.

To ensure that the implementation of this procedure 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 procedure 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 endeavor to make reasonable adjustments to accommodate any employee/patient with particular equality, diversity and inclusion requirements in implementing this procedure. 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.

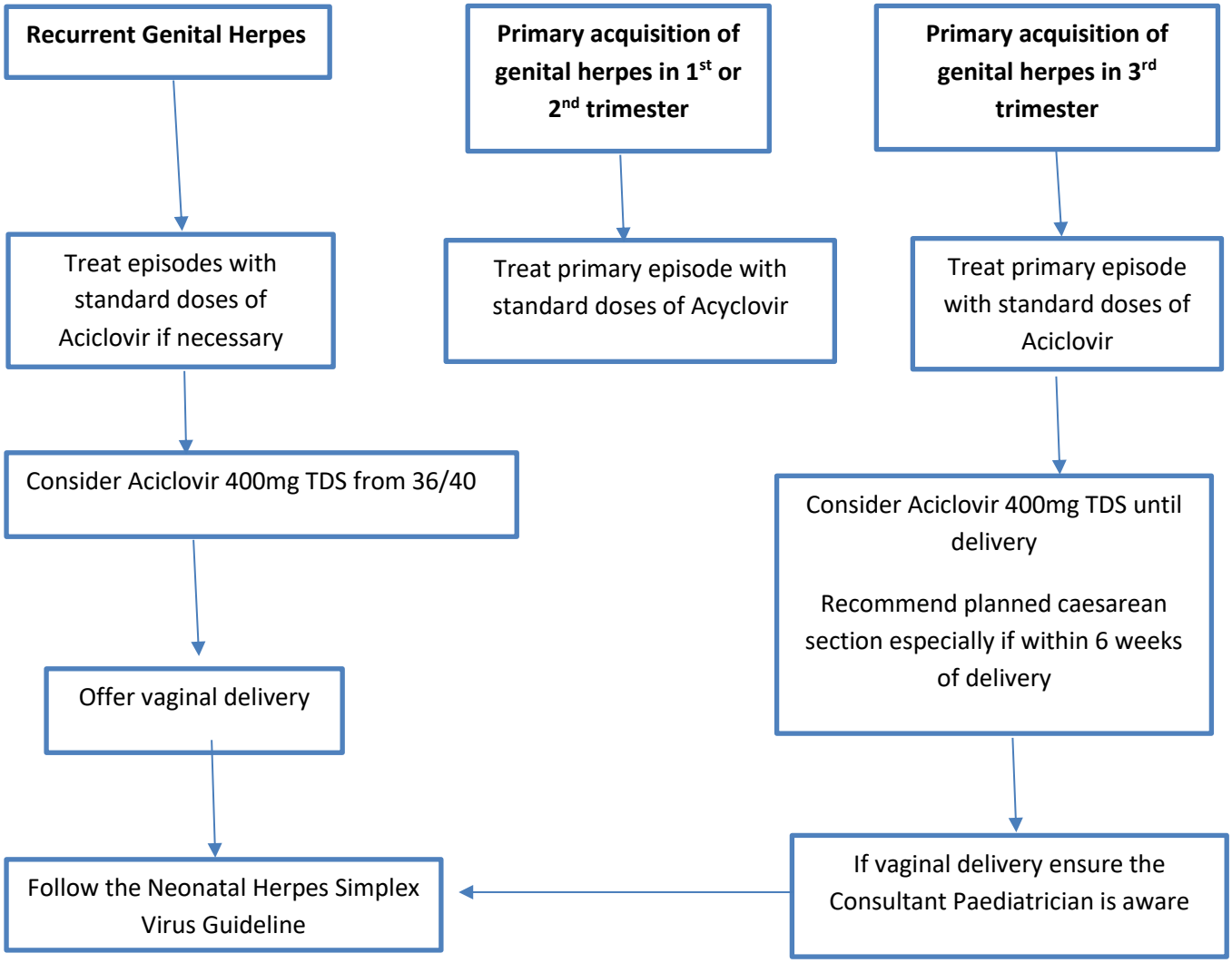
9.1 Recording and Monitoring of Equality & Diversity

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

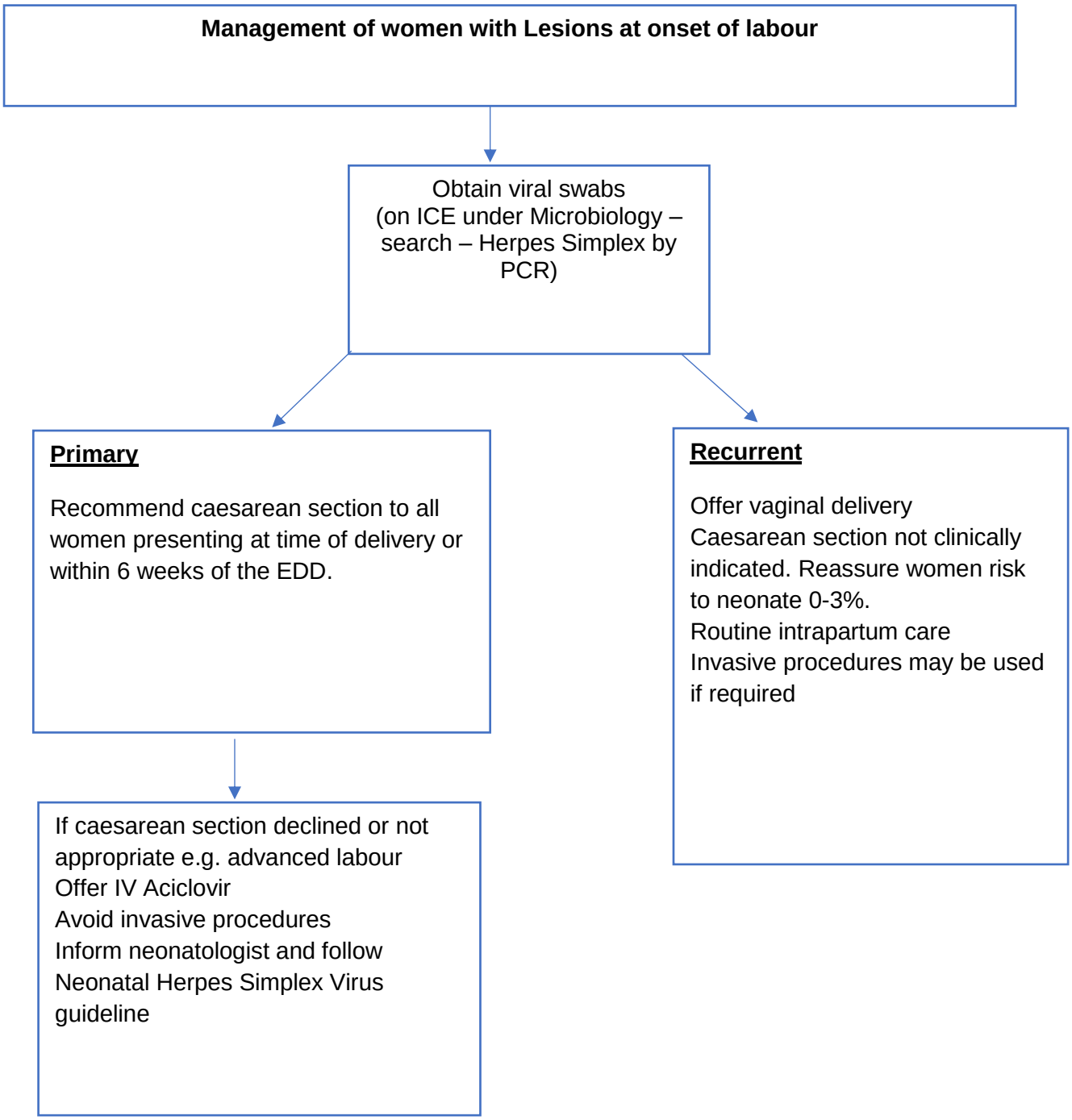
The Trust understands the business case for equality, diversity and inclusion and will make sure that this is translated into practice. Accordingly, all procedures will be monitored to ensure their effectiveness.

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.

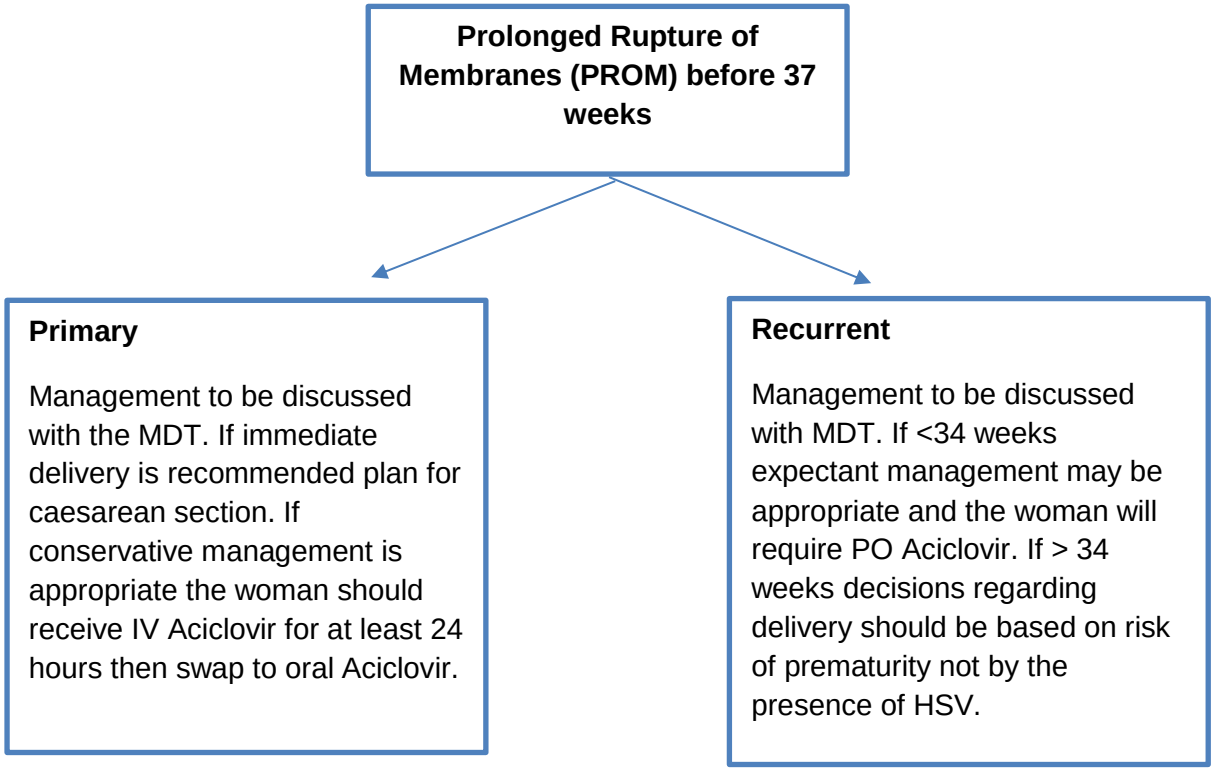
Appendix 1 Flow chart 1



Appendix 2 Flow chart 2



Appendix 3 Flow chart 3



Appendix 4

Glossary of terms

AROM – Artificial rupture of the membranes

FEGH – First episode genital herpes

FSE – Fetal scalp electrode

HIV - human immunodeficiency virus

HSV – Herpes simplex virus

PPROM – Preterm pre-labour rupture of the membranes

SROM – Spontaneous rupture of the membranes

Appendix 5 (must always be the last appendix)

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

Version	Date	Comments	Author
	02/02/2023	Updated the guideline. New format. Changed how the guideline flows.	Emma Hargreaves

Review Process Prior to Ratification:

Name of Group/Department/Committee	Date
Reviewed by Maternity Guideline Group	N/A
Reviewed at Women's Business and Governance meeting	17/03/2023
Approved at Trust Clinical Guidelines Group	22/03/2023
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	Guideline for the Management of Herpes During Pregnancy
Document author (job title and team)	Emma Hargreaves/ Deputy Antenatal and Newborn Screening Coordinator/Obstetricians
New or reviewed document	Reviewed. Replaces Genital herpes in pregnancy
List staff groups/departments consulted with during the document development	Screening Team Obstetricians
Approval recommended by (meeting and dates):	WB&G 17/03/2023 CBU3 Governance 22/03/2023
Date of next review (maximum 3 years)	23/03/2026
Key words for search criteria on intranet (max 10 words)	Herpes in pregnancy HSV management of herpes
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 Governance

Date approved: 22/03/2023

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Date uploaded to Trust Approved Documents page: 28/03/2023