HERPES SIMPLEX IN PREGNANCY AND BIRTH

This LOP is developed to guide clinical practice at the Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this LOP.

1. AIM

- Appropriate management of pregnant woman with Herpes Simplex Virus (HSV) infection
- This is subcategorized into:-
    a) First or Second Trimester Primary Infection (until 27+6 weeks)
    b) Third Trimester Primary Infection (from 28 weeks)
    c) Recurrent Genital Herpes
    d) Women with Primary or Recurrent Genital Lesions at the Onset of Labour
    e) Genital Herpes in PPROM (Preterm premature rupture of membranes)

2. PATIENT

- Pregnant woman with primary or secondary HSV infection

3. STAFF

- Medical, midwifery and neonatal staff

4. EQUIPMENT

- Nil

5. CLINICAL PRACTICE

First or Second Trimester Primary Infection (until 27+6 weeks)

- Refer woman presenting with their first episode of genital herpes to a medical staff member.
- Offer screening for other sexually transmitted infections and confirmation of herpes diagnosis by obtaining HSV serology (type specific) and HSV genital culture. Ideally test the serum in parallel with first antenatally collected sample to define the episode as primary (no previous HSV infection) or first episode
- Do not delay treatment, management should be in line with her clinical condition and usually involves the use of oral or intravenous acyclovir in standard doses (400mg TDS usually for 5 days) [4]
- Offer Paracetamol and Topical Lignocaine 2% gel for symptom relief
- Manage pregnancy expectantly, providing delivery is not imminent within next 6 weeks. Vaginal delivery should be anticipated
- Administer daily suppressive acyclovir 400mg TDS from 36 weeks gestation to reduce HSV lesions at term, reduce asymptomatic viral shedding and reduce the need for delivery via caesarean section [4]

Third Trimester Primary Infection (from 28 weeks of Gestation)

- As per First and Second Trimester Primary infection management, however
- Recommend a caesarean section as the mode of delivery for all women developing symptoms within 6 weeks of expected delivery

Recurrent Genital Herpes

- Offer daily suppressive acyclovir from 36 weeks gestation if been symptomatic [4]
- Discuss with the woman that vaginal delivery should be anticipated in the absence of other obstetric indications for caesarean section

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Primary or Recurrent Genital Lesions at the onset of labour

- Assess the woman clinically to ascertain whether this is a primary or recurrent episode
- Perform HSV serology type specific and HSV genital culture (as result may influence the management of the neonate)
- Recommend caesarean section if suspected primary HSV lesion is detected at time of delivery or within 6 weeks from the expected due date (EDD) [5]

Suspected Primary episode:-

Woman opting for a vaginal delivery:

- Discuss risk of neonatal herpes is 30-50% [1, 5]
- Administer IV acyclovir to mother if considering vaginal delivery in consultation with infectious diseases
- Avoid invasive procedures such as: fetal scalp electrodes (FSE), fetal blood sampling (FSL), artificial rupture of membranes (ARM) and/or instrumental deliveries.

Recurrent episode:-

- Discuss that the risk of transmission to neonate is 1-3%[4] for vaginal delivery
- Inform the woman that caesarean delivery can be considered but the risk to the mother and future pregnancies should be balanced against the small risk of neonatal transmission of HSV with recurrent disease
- Decide on mode of delivery in conjunction with woman, medical and midwifery staff
- Use of invasive procedures such as FSE, FSL, ARM and Instrumentals is considered unlikely to place neonate at risk of herpes infection [2, 4]

Genital Herpes in Preterm Premature Rupture of Membranes (PPROM) – prior to 37 weeks

- Discuss management of the woman and neonate with multidisciplinary team involving obstetricians, neonatologists and midwifery staff
- Administer IV Acyclovir 5mg/kg every 8 hours [4,5] if anticipating conservative management in consultation with infectious disease
- Offer delivery by caesarean section, if delivery indicated within 6 weeks of primary infection, after discussion with obstetrician, neonatologists and midwifery staff

General

- Inform neonatal team about women who are giving birth with a history of active herpes lesions, either primary or recurrent episodes
- Avoid direct contact with the neonate and herpes lesions in healthcare workers and family members with active HSV Infection such as orofacial herpes or herpetic whitlow

6. DOCUMENTATION

- Yellow Card
- Medical records

7. EDUCATIONAL NOTES

- 85% of neonatal HSV infections are acquired perinatally [4 5]
- Maternal HSV infection at the time of a vaginal birth may lead to significant neonatal disease secondary to ascending infection after rupture of membranes [1 2 5].
- Caesarean Section reduces the risk of HSV transmission in women shedding HSV at the time of birth, especially in primary infections with HSV type antibody negative
- The highest risk for neonatal infection occurs when there is a primary genital HSV infection near the time of delivery.

HERPES SIMPLEX IN PREGNANCY AND BIRTH cont'd

- Transmission Risk for primary episode prior to 30-34 weeks is between 1-3% (similar rates to recurrent HSV)[5]
- Transmission Risk for primary episode in third trimester, especially after 30-34 weeks is between 30-50%
- Transmission Risk for primary episode at the onset of labour, undergoing a vaginal delivery is 41%
- Transmission Risk for recurrent genital herpes is less than 1% [5]
    - Risk of neonatal herpes is low, even if lesions are present at the time of the delivery
    - Sequential PCR culture during late gestation to predict viral shedding at term or delivery is not indicated
    - Currently, there is limited evidence to advise best practice when PPROM is complicated by primary HSV infection
- Given the increased risk of fetal transmission during a primary HSV infection, some experts recommend caesarean delivery between 28-32 weeks [6]
- Patients with PPROM and primary HSV infection less than 28-32 weeks gestation are recommended to be managed expectantly with the addition of IV Acyclovir [6]
- Management of these patients should be deemed by multidisciplinary team involving obstetricians, neonatologists and midwifery staff [1]
- A Patient Information Leaflet can be obtained from: https://www.fpnsw.org.au/factsheets/individuals/stis/genital-herpes

8. RELATED POLICIES / PROCEDURES / CLINICAL PRACTICE LOP

- First stage labour care for women with a low risk pregnancy
- First stage labour – recognition of normal progress and management of delay
- Sexually Transmitted Infections (STI) / blood borne viruses antenatal screening and treatment guideline

9. RISK RATING

- Low

10. NATIONAL STANDARD

- Standard 5 – Comprehensive Care

11. REFERENCES

1 SOGC Guidelines for the Management of Herpes Simplex Virus in Pregnancy. J Obstet Gynaecol Can 2017. https://www.clinicalkey.com.au/#!/content/playContent/1-s2.0-S1701216317304565?returnurl=https:%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS1701216317304565%3Fshowall%3Dtrue&referrer=https:%2F%2Fwww.ncbi.nlm.nih.gov%2Fpubmed%2F28729112

2 Royal College of Obstetricians and Gynaecologists, (2019) Management of Genital Herpes in Pregnancy. https://www.rcog.org.uk/globalassets/documents/guidelines/management-genital-herpes.pdf

3 Hollier LM, Wendel GD. Third trimester antiviral prophylaxis for preventing maternal genital herpes simplex virus (HSV) recurrences and neonatal infection. *Cochrane Database of Systematic Reviews* 2008, Issue 1. Art. No.: CD004946

4 Management of Perinatal Infections guideline 2014 edition. Edited By Palasanthiran P, Starr M, and Jones C. Australasian Society For Infectious Diseases https://www.asid.net.au/documents/item/368

HERPES SIMPLEX IN PREGNANCY AND BIRTH cont'd

5 South Australia Heath Perinatal Practice Guideline Herpes Simplex Virus Infection in Pregnancy. 2017. https://www.sahealth.sa.gov.au/wps/wcm/connect/91b9ab004ee4825781368dd150ce4f37/Genital+Herpes+Simplex+Virus+%28HSV%29+Infection+in+Pregnancy_PPG_v5.0.pdf?MOD=AJPERES&CACHEID=ROOTWORKSPACE-91b9ab004ee4825781368dd150ce4f37-mADBB9

6 Graham, G. and Bakaysa, S., 2018. Preterm membranes premature (PPROM) rupture of. *Evidence-based Obstetrics and Gynecology*, p.397.

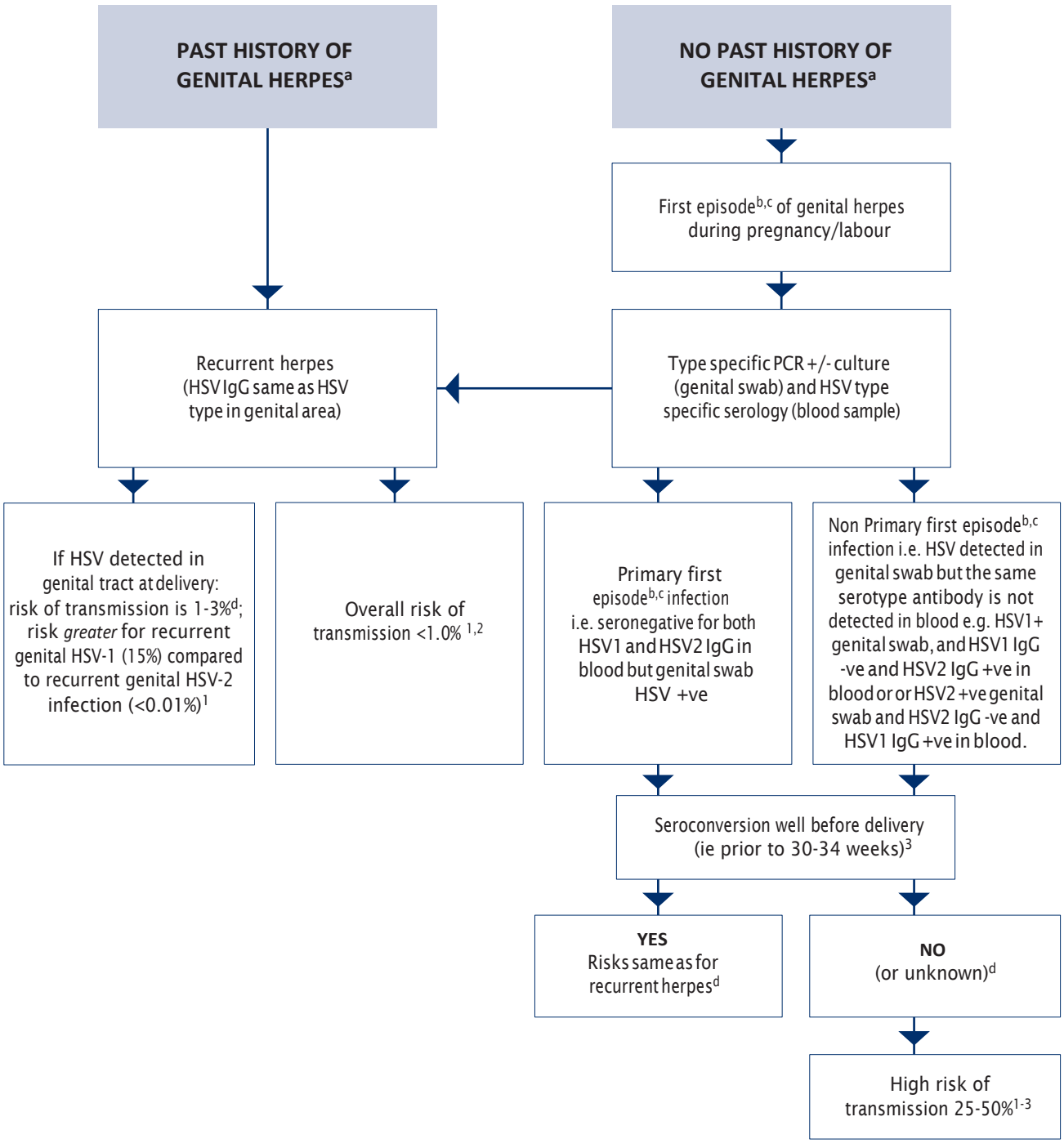
REVISION & APPROVAL HISTORY
Reviewed and endorsed Maternity Services LOPs group 10/3/20
Approved Quality & Patient Safety Committee 20/6/13
Maternity Services Clinical Committee 14/9/04
Approved Quality Council 20/9/04
Reviewed and endorsed Maternity Services LOPs group 18/6/13

FOR REVIEW : MARCH 2025

……/Appendices

HERPES SIMPLEX VIRUS

HSV IN PREGNANCY: RISK OF VERTICAL TRANSMISSION



COMMENTS

a. 85% of neonatal HSV infections are acquired perinatally. True intrauterine infection accounts for ≤ 5% of reported cases, usually to women with newly acquired infection. Spontaneous abortion, IUGR, preterm labour have also been reported. These complications are rare (<1%) for women with primary or recurrent disease[3].

b. Most genital HSV infections (primary, non-primary or recurrent) are asymptomatic. ie most mothers of infants with neonatal HSV disease were previously unaware of their own infection.

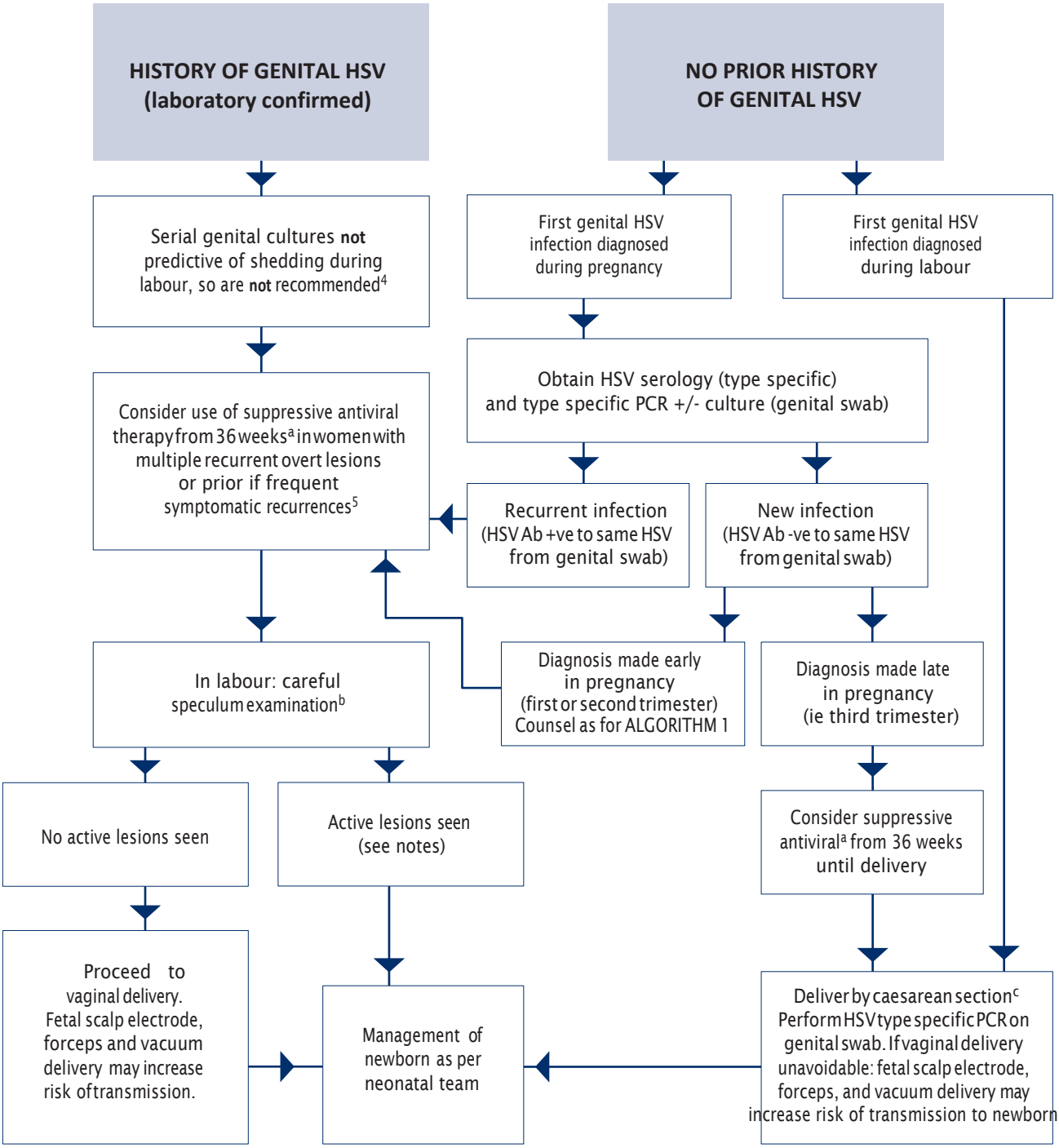
c. Primary first episode refers to new acquisition of either HSV serotype without prior exposure (i.e. seronegative in blood to both HSV IgG 1 and 2). Non primary first episode infection refers to new acquisition of an HSV serotype, with evidence of exposure (i.e. HSV IgG +ve) to the other serotype.

d. If virus in genital tract:
   - use of scalp electrodes increases risk of transmission (OR 6.8)[1,3]
   - caesarean delivery reduces risk of transmission (OR 0.14)[1,3]
   - However, in clinical practice this is not often known at delivery.

Appendix 2 Australasian Society for Infectious Diseases [4]

HERPES SIMPLEX VIRUS

MANAGEMENT OF GENITAL HSV IN PREGNANCY



COMMENTS

a. Suppressive oral aciclovir 400mg po tds or valaciclovir 500mg po bd reduces clinical recurrences, asymptomatic shedding, rate of caesarean section and virus in genital tract. Use must be balanced with risks of medication to newborn[5,6]. Clinical trials underpowered to evaluate efficacy of preventing transmission to the newborn[5,6] and neonatal disease has been reported after maternal suppression[7].

b. Careful speculum examination for active genital HSV should be performed on all women at delivery.

c. Caesarean section reduces risk of HSV transmission in women shedding HSV at the time of birth, but does not provide complete protection against neonatal HSV disease. [1,3.]