HERPES SIMPLEX IN PREGNANCY

PURPOSE

- To diagnose women who present with herpes simplex virus (HSV) in pregnancy.
- To provide education and management to prevent maternal HSV transmission to the fetus or neonate. Present the women information how to access support groups and information about HSV.
- Educate the woman about prevention of transmission of HSV to a partner or close contacts.
- Provide the woman with management options to prevent HSV transmission during pregnancy.

BACKGROUND INFORMATION

Herpes simplex viruses can be differentiated into HSV type 1 and HSV type 2. Both types are transmitted across epithelial mucosal cells as well as through skin interruptions, and then migrate to nerve tissues, where they persist in a latent stage. HSV 1 predominates in orofacial lesions and found in the trigeminal ganglia, while HSV 2 is most commonly found in the lumbosacral ganglia. Either of these viruses can infect any region of the body, with rates of HSV 1 currently increasing in the genital region.

The incubation period with infection of HSV 1 or HSV 2 ranges from 2 to 12 days. Most people infected with HSV are unaware they have contacted the virus, and most new infections in pregnant women are asymptomatic.

Neonatal herpes is associated with high morbidity and mortality; is most commonly acquired at or near the time of delivery, and accounts for approximately 85% of all cases. The remainder of neonatal herpes cases are caused from intrauterine infection resulting from transplacental transmission or ascending infection from the cervix, and the rest occur from postnatal infection caused by contact sources. As 70% of the cases of neonatal herpes are acquired from women who shed the virus asymptptomatically focus has turned to therapeutic approaches to decrease the shedding of the virus regardless of the presence of lesions.

HSV disease in the neonate can be localised to the skin, eyes and/or mouth, or secondly involve the local central nervous system. The third outcome with the worst prognosis is when the neonate develops disseminated infection with multiple organ involvement. The greatest risk for neonatal infection is if the mother acquires a primary HSV in the third trimester, and particularly within 6 weeks of delivery when viral shedding persists before maternal development of protective antibodies.

Distinguishing a primary episode of HSV from a non-primary episode in pregnancy cannot be based on clinical findings. Diagnosis is based on a combination of a positive viral finding and a negative serological test or evidence of seroconversion.
KEY POINTS

1. Primary genital herpes infection in pregnancy causes an increased risk for perinatal transmission compared to recurrent HSV.²
2. Caesarean section is recommended for women presenting with a primary episode of genital herpes or with prodromal symptoms at the time of delivery, or within 6 weeks of the expected date of delivery.⁵
3. Women with active recurrent genital herpes should be offered suppressive viral therapy at or beyond 36 weeks of gestation.²,⁴
4. Women with recurrent genital HSV have a very small risk of perinatal transmission even if they have an outbreak during the pregnancy.⁵
5. Elective caesarean section is not indicated for women with a history of HSV in the absence of active genital lesions or prodromes.²

PREVENTION

- A woman who has a partner positive for HSV, but has not acquired the infection herself may reduce the risk of acquiring the infection by the use of condoms, abstaining from intercourse in the third trimester⁵, or practicing abstinence from sexual relations if lesions are present.
- Inform the woman:
  - Transmission of the virus can occur during asymptomatic shedding.
  - HSV can be transmitted during oral sex.
  - Special attention should be given during the third trimester. Unprotected sexual activity should be avoided and condoms should be used.⁶
  - To abstain from sexual activities if lesions or prodrome are present.⁶
  - Lack of history of herpes lesion in either partner does not exclude infection which may be asymptomatic.
- Mothers, family members and health care workers with active herpes lesions should avoid direct contact between the lesions and the neonate. See Infection Control policy 3.4 Infections in Health Care Workers.

SCREENING FOR HSV

- At the booking visit the women should be asked about previous history of HSV for both herself and/or her partner. Document the information on the MR220.
- Routine screening is not offered to antenatal women at KEMH. However, HSV serology screening should be considered for women who has never been tested and their partner is positive for HSV.

MANAGEMENT OF WOMEN WITH A HISTORY OF RECURRENT HSV INFECTIONS

ANTEPARTUM

- Women attending a low risk midwives clinic for antenatal care who have a history of recurrent HSV infections should be referred to the obstetric medical team at approximately 34 weeks gestation to discuss the option of prophylactic acyclovir, and birth management.
- Prophylactic acyclovir 400 mg twice daily or valaciclovir 500mg daily should be offered to all women to commence at the beginning of 36 weeks gestation until delivery.

INTRAPARTUM
Women presenting in labour with no active lesions
Caesarean section is not recommended.²

Women presenting in labour with no active lesions but with a positive viral culture.
Caesarean section is recommended.¹⁷

Women presenting with recurrent lesions that are non genital
- Caesarean is not recommended. Cover lesions on sites such as the back, thighs or buttocks with an occlusive dressing.²
- A speculum examination should be performed to exclude cervical, vaginal or labial lesions.²

Women presenting in labour with an active lesion or prodromal symptoms
Prodromal symptoms such as vulvar pain, burning, itching, tingling, paraesthesia, and pain around the lumbosacral area may indicate an impending outbreak of HSV.², ⁶
The rate of transmission is <3% for women with recurrent genital HCV presenting with a lesion at time of vaginal birth.²
- Women should be advised the risk to the neonate is small. Caesarean section is not routinely recommended, but the decision should be made after consultation between the women and medical staff.⁵
- If a woman has ruptured membranes at term, birth should be expedited. Prolonged rupture of membranes should be avoided as risk for perinatal infection increases.⁵
- Avoid invasive procedures e.g. fetal blood sample and fetal scalp electrodes.⁵, ⁶ Avoid the use of forceps and vacuum extraction if possible.⁵, ⁷
- Notify the Paediatrician when the woman presents in labour.
- Notify the Clinical Microbiologist when the woman presents in labour.

MANAGEMENT OF A WOMAN PRESENTING WITH A PRIMARY OUTBREAK OF HSV

DIAGNOSIS
Tests to confirm the presence of HSV infection can be divided into two groups:
i) viral detection techniques
ii) antibody detection techniques
1. Obtain a swab and/or blade sample from the lesion for viral culture. Place in a viral transport medium (VTM) and send to the lab as soon as possible. The viral culture is more likely to be successful if the swab is taken within 36 hours of the appearance of the lesions.⁸
   Note: a negative test result does not exclude HSV infection. As lesions heal they are less likely to yield a positive result.
2. Antibody serology tests detect the presence of antibodies to either HSV 1 or HSV 2.² Type specific serology may assist identification of recurrent HSV, or primary HSV infection enabling appropriate advice regarding HSV management in pregnancy.
   Note: serology is not a substitute for viral detection techniques.⁸

ANTENATAL MANAGEMENT
- Women presenting with a primary outbreak of HSV can be offered oral or intravenous acyclovir according to the clinical symptoms.⁵
- When primary infection is acquired during the first two trimesters of pregnancy, carry out sequential viral cultures on genital secretions from the 32⁵⁰ week of gestation. If 2 consecutive cultures result negative and there are no active herpetic lesions at the time of delivery, a vaginal delivery is recommended.¹¹
- Women who present in the antenatal period with a primary episode of genital HSV should be offered prophylactic acyclovir 400 mg twice daily or valaciclovir 500mg once daily at the beginning of 36 weeks gestation.
• Provide women with information to access counselling and written material about HSV.
• Conservative treatment to provide comfort may include:
  - Paracetamol or aspirin to reduce pain and soreness.
  - Betadine paint to dry out blisters and prevent infection.
  - Anaesthetic cream to reduce pain, especially during voiding.
  - Voiding while sitting in warm water may be helpful if the woman is experiencing dysuria.
  - Advise women to keep the area clean and dry to prevent secondary infections. Clothing should be loose-fitting and cotton underwear should be used.
  - Application of ice packs or a cooling pack may provide a soothing effect.

MODE OF DELIVERY

Caesarean section
Caesarean section is recommended for women presenting with primary episode of genital HSV at time of delivery, or within 6 weeks of the expected date of delivery.

Vaginal delivery
• Inform the clinical microbiologist when a woman presents with a primary episode HSV and elects to have a vaginal birth.
• Management for women who elect to have a vaginal delivery within 6 weeks of a primary outbreak of genital HSV should include:
  - Avoid artificial rupture of membranes.
  - Avoid invasive procedures e.g. fetal blood sample and fetal scalp electrodes. Avoid the use of forceps and vacuum extraction if possible.
  - Consider intravenous Acyclovir – it may reduce the risk of neonatal herpes.
  - Inform the Paediatrician when the woman presents.
  - Notify the Clinical Microbiologist when the women presents in labour.

POST PARTUM MANAGEMENT
• Parents should be advised of the early signs of neonatal HSV infection and advised to seek early medical advice.
• Women with active HSV should have education on methods to avoid transmission to the neonate e.g. hand washing, and avoiding kissing the neonate if orofacial HSV is present.
• Breastfeeding is contraindicated if a herpetic lesion is present on the breast.
REFERENCES (STANDARDS)


National Standards – 1 Clinical Care is Guided by Current Best Practice.
3 Preventing and Controlling Healthcare Associated Infections

Legislation - Nil

Related Guidelines - Nil

Other related documents – Nil

RESPONSIBILITY

Policy Sponsor Medical Director Obstetrics

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