

Genital Herpes



Case Definition

Clinically compatible illness (see below) and laboratory evidence of infection (see below).

Reporting Requirements

Genital herpes is not reportable in Manitoba.

Clinical Presentation/Natural History

Genital herpes is usually caused by herpes simplex virus, type 2 (HSV-2), but can also be caused by type 1 (HSV-1). It occurs mainly in adolescents or adults and is sexually transmitted. Primary and recurrent infections can occur, with or without symptoms. A prodrome of tenderness, itching and burning is often noted for several hours before a recurrence. Recurrences may be progressively less severe and of shorter duration. They vary in frequency from more than one attack per month (5-25%) to less than one attack every six months (10-65%). The precipitating factors may be the same for any given person yet vary considerably among individuals. They include local trauma (e.g., sex, surgery), menstruation, emotional stress, tanning and medications (e.g., steroids).

In women, the principal sites of primary disease are the cervix and the vulva. Recurrent disease may involve the vulva, perineal skin, legs and buttocks. In men, lesions usually appear on the glans penis or prepuce. Other genital or perineal sites such as the anus and rectum, as well as the mouth, may be involved in men or women, depending on sexual practices. HSV-2 has been associated with aseptic meningitis and radiculopathies.

Herpes simplex encephalitis is a rare complication of herpetic infection. Estimates of its frequency range from one in 250,000-500,000 persons per year.

HSV in newborns can range from a mild, localized infection to a fatal disseminated one. The incidence of neonatal HSV infection has been estimated to range from one in 2,000 to one in 10,000 live

births and is higher in premature than in full-term infants. The overall risk of neonatal infection is 10 times greater if mothers have acquired HSV during pregnancy than if they reactivate latent virus. Primary infection during pregnancy may also lead to abortion, premature labour, skin lesions, microcephaly or intrauterine growth retardation.

Persons compromised by immunodeficiency or immunosuppression by malnutrition, or by disorders of skin integrity (e.g., burns, eczema) are at greater risk of developing severe HSV infections.

Etiology

Herpes simplex virus (HSV). Type II is a more frequent cause of genital herpes than Type I.

Epidemiology

Reservoir: Humans.

Transmission: Direct contact (usually skin to skin) through infected secretions is the principal mode of spread. Herpes types 1 and 2 are transmitted during sexual activity. Vaginal delivery in pregnant women with active genital infection, particularly if primary, carries risk of infection to the fetus or newborn. Herpetic whitlow may occur as a result of contact with infectious lesions. Asymptomatic shedding is common, particularly in the first year after a primary infection, and may be an important source of sexual transmission. Suppressive therapy (see below) may decrease the risk of asymptomatic shedding by as much as 80%.

Occurrence:

General: Worldwide, 50-90% of adults possess circulating antibodies against HSV-1. HSV-2 antibody is found in about 20-30% of American adults. The prevalence is greater in lower socioeconomic groups, persons who are single, persons with multiple sexual partners and those with a history of sexually transmitted infections.

Incubation Period: Two to 12 days; range two to 30 days.

Susceptibility and Resistance: Humans are probably universally susceptible.

Period of Communicability: Persons with primary genital lesions are most infective for about seven to 12 days, and with recurrent disease for four to seven days. Asymptomatic oral as well as genital infections with transient viral shedding are common. Reactivation of the virus causes recurrent disease. Persons are at risk of transmitting the virus a few days before and after the disappearance of the lesions. Viral shedding may persist for prolonged periods, although the risk of transmission may vary. Oral antiviral agents may decrease the period of shedding.

Diagnosis

Diagnosis is suggested by characteristic cytologic changes (multinucleated giant cells with intranuclear inclusions in tissue scrapings or biopsy), but is confirmed by direct fluorescent antibody tests or isolation of the virus from scrapings taken from the base of the oral or genital lesions.

Measurement of IgM HSV antibodies in infants may be helpful in the diagnosis of neonatal infection. Such antibodies usually appear within the first four weeks of life in infected infants and persist for many months. Measurement of IgM antibodies in older persons has not proved useful in separating primary from recurrent infections. Commercial type-specific antibody tests for HSV are expected to be licenced by 2000. The only reliable type-specific test has been the HSV Western blot, which is not widely available, and is expensive and very labour-intensive to perform.

In selected cases, PCR is also available for the diagnosis of genital and CNS infections.

Key Investigations

- Interview case for history of exposure, risk assessment, contacts and promotion of safer sex practices.
- Test for other STDs, including HIV infection.

Control

Management of Cases:

- Cases should be interviewed for history of exposure, risk assessment, contacts, and promotion of safer sex practices. Test for HIV infection and other STDs if indicated.
- Appropriate counselling should be offered, including information on telephone, print and internet resources (see below).

Treatment:

- The following drugs can be obtained from a physician for the treatment of recurrent herpes genitalis (episodic therapy). They reduce symptoms, and shorten healing time and viral shedding. They should not be used in pregnant or lactating women.
 - Acyclovir (Zovirax) 200mg po five times per day for five days, or 400 mg po tid for five days, or 800 mg po bid for five days.
 - Valacyclovir (Valtrex) 500 mg po bid for five days. This product is better-absorbed and attains higher blood levels than acyclovir.
 - Famciclovir (Famvir) 125 mg bid for five days.

Acyclovir is useful for systemic HSV infections.

None of these agents affects latent virus.

- Suppressive therapy regimens are also available for all three agents. Consult an experienced physician or infectious disease specialist. Suppressive therapy may be continued for months or even years.
- See also the protocol on Children with Sexually Transmitted Diseases.

Management of Contacts

- Sex partners of persons with genital HSV should be counseled about the risks of infection and preventive measures.

Preventive Measures:

- At present, no highly effective methods for the prevention of sexual infection are available for HSV other than avoiding contact with infective lesions. The use of latex condoms may decrease the risk of infection.
- Re-inforce the importance of handwashing to reduce the risk of auto-inoculation.
- The prevention of neonatal disease in the offspring of mothers with genital infection presents special problems. If clinically apparent cervical infection is detected at parturition before membrane rupture, Caesarean section is recommended. However, if membrane rupture has already occurred, it is doubtful whether Caesarean section is safer than vaginal delivery. If clinical examination is negative at parturition, vaginal delivery is indicated. The use of prophylactic acyclovir in these situations is under investigation. Fetal scalp clips should not be used during labour and delivery. Infectious disease consultation is recommended. See also the protocol on Congenital/Neonatal *H. Simplex* Infection.
- Close monitoring of infants born to seropositive women is essential, with early intervention if illness develops during the first weeks of life.

Additional Resources

For the Public:

- Booklets: “Taking control of genital herpes,” Parts I to IV. (Fall 1996). Glaxo Wellcome.
Part I: “General Information”
Part II: “Reducing the Spread of Genital Herpes”
Part III: “Genital Herpes and Pregnancy”
Part IV: “Telling Your Sexual Partner”
- STD/HIV Information Line (Winnipeg RHA) for counselling, literature and information on support groups, 940-2200
- AIDS/STD Information (Village Clinic/Nine Circles Community Health Centre) Winnipeg, 945-2437
Outside Winnipeg, 1-800-782-2437
- Facts of LIFE Line (Sexuality Education Resource Centre) Winnipeg, 947-9222
Outside Winnipeg, 1-800-452-1957
- American Sexual Health Association (ASHA) website: www.ashastd.org and booklets:
Herpes: Questions and Answers
Telling Your Partner About Herpes
When Your Partner Has Herpes
Herpes Simplex and Pregnancy
- Herpes Resource Centre, 1-800-230-6039
- Glaxo-Wellcome Patient Support Line, 1-888-426-9555
- *Canadian STD Guidelines, 1998 Edition*. Available from Audiovisual and Publications Department, Manitoba Health, telephone (204) 786-7112, fax (204) 772-7213.