

ARBOVIRAL ALERT WESTERN ENCEPHALITIS VIRUS AND ST. LOUIS ENCEPHALITIS VIRUS ACTIVITY IN TEXAS

After several quiescent summers, both western equine encephalitis (WEE) virus and St. Louis 1+ -> encephalitis (SLE) virus have caused cases of human illness in Texas. Humans and horses are accidental hosts for these viruses. They are not part of the cycle of infection and cannot transmit the infection. Rather, human or equine cases are evidence that portions of the mosquito population in certain areas are infected with the responsible virus.

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Although WEE has been isolated from mosquitoes in Brazoria, Chambers, Lubbock, Midland, Nolan, and Tarrant counties, human and equine cases have been reported only from the Panhandle and High Plains areas of Texas. The first reported human case was a 16-year-old female from rural Hale County who had onset of illness August 3, 1986. She was in Sepulpa, Oklahoma from July 25 to 28; however no WEE activity has been reported from that area. The second and third cases to be reported had onset July 31 and August 1, respectively. Both of these cases were infants who resided in Hereford in Deaf Smith County. All of the human cases resided in rural areas with large mosquito populations. Equine cases have been reported from the Midland area.

The severity of illness associated with WEE virus infection decreases with increasing age. Infants frequently present with high fever and unremitting seizures and the incidence of longterm neurologic sequalae and learning and behavioral disorders is significant.

SLE virus activity is centered in Dallas and Harris counties. Although there have been isolations from mosquitoes and serologic evidence in birds, as yet there has been no confirmed human case in Dallas. On the Gulf Coast, SLE virus has been isolated from mosquitoes and antibodies demonstrated in juvenile birds in Harris County. Six human SLE cases have been confirmed in Baytown. Five patients are adults; one is a child. Dates of onset ranged from August 2 to August 20. Two presumptive cases, also in adults, have been reported from the same area. These two individuals have SLE antibody titers, but further work is required to confirm the association with the current illness. Scrologic studies are pending on several other suspected cases from the same area. It is important to note that the two presumptive cases are over 60 years of age, and their illnesses were first diagnosed as cerebrovascular accidents. In contrast to WEE, the severity of SLE virus infection increases with increasing age.

Both viruses produce a range of symptoms from none to febrile headache, aseptic meningitis, and severe encephalitis. Fever and headache are frequently the first and most persistent symptoms. Symptoms of encephalitis in adults involve lethargy, confusion, alterations in consciousness, and coma. Infants may present with increased irritability and sleepiness; seizures are common with WEE infections.

The diagnosis of both infections is confirmed by a four-fold rise in antibody titer between 4 7 serum samples. It is, therefore, important to collect the first sample early in the course of



illness. Testing is available at the Houston City Health Department Laboratory, 1115 N. MacGregor, Houston, Texas 77030 and the Bureau of Laboratories, Texas Department of Health, 1100 West 49th Street, Austin, Texas 78756.

Public health measures to limit the spread of the infection should be initiated as soon as the illness is suspected. This is accomplished by notifying the local health or mosquito control department. Where these are not available locally, the TDH regional offices provide these services. Regional offices may be notified directly or via the TDH General Sanitation Division (512) 458-7521 or the Infectious Disease Division (512) 458-7328 in Austin. Prompt notification alerts mosquito control personnel to target their efforts. DO NOT WAIT UNTIL A CASE IS CONFIRMED TO NOTIFY HEALTH AUTHORITIES! Precious time may be lost during which other individuals may be exposed. The incubation period between the bite of an infected mosquito and onset of illness ranges from 5 to 15 days, and, allowing for up to two weeks to demonstrate a four-fold rise in titer, a month or more can pass between exposure and final confirmation. Mosquito control measures are conducted throughout the summer. When there is notification of a suspected case, these ongoing efforts are simply redirected.

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GENITAL HERPES INFECTION - UNITED STATES, 1966-1984*

Genital herpes infection remains a major public health problem in the United States. Data collected by the National Disease and Therapeutic Index (NDTI) from 1966 to 1981 showed marked increases in the numbers of patient consultations for genital herpes. Current analysis shows continued upward trends in symptomatic genital herpes infections among private patients in the United States.

The NDTI survey is a national stratified random sample of data from private practitioners' office-based practices in the contiguous United States. This survey is a continuing compilation of statistical information about patterns and treatments of various diseases and represents a sample of patient-physician interactions. Included in the data coded are: 1) "consultations" about genital herpes between patients and physicians, including office visits, house calls, telephone calls, and hospital visits; 2) "office visits," referring to initial or repeat visits for genital herpes; and 3) "first office visits," coded if the patient presents to a physician participating in the survey for the first time with genital herpes. No laboratory confirmation of the physicians' diagnoses is included in the survey.

The estimated number of physician-patient consultations for genital herpes increased 15-fold between 1966 and 1984, from 29,560 to 450,570 (Figure 1). Office visits accounted for 79% of these consultations. Also, first visits-a more likely indicator of newly acquired infection-increased nearly ninefold, from 17,810 in 1966 to 156,720 in 1984. Although a decline in consultations, office visits, and first office visits was evident from 1978 to 1980, the upward trends remain statistically significant for all three types of physician-patient interaction (p<0.004).

The number of first office visits for genital herpes was approximately the same for both men and women. However, over the 19-year span, women made more total office visits for genital herpes than did men. In each of three time periods--1966-1972, 1973-1978, and 1979-1984--the number of consultations increased for men and women in each age group, except for men 40-44 years of age (Figure 2). Adults 20 to 29 years of age continued to account for the largest proportion of consultations in all age groups in each period.

Genital herpes infections increased uniformly in all regions of the country. The specialists most likely to see patients with genital herpes over the 19-year span were obstetricians-gynecologists

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(36% of total), general practitioners (19%), dermatologists (13%), internists (12%), and urologists (5%). Office visits to all other types of specialists accounted for the remaining 15%.

MMWR Editorial Note: The trends in symptomatic genital herpes infection reported here are comparable to data reported from a population-based study in Rochester, Minnesota, where investigators found a consistent annual increase in the incidence of genital herpes from 1965 to 1979. The Rochester study also showed a similar age distribution for patients with symptomatic genital herpes infections, as in this report.

These data do not show the actual number of genital herpes cases in the United States. Patients with genital herpes may seek care in public health-care facilities and from other private ambulatory-care providers. Therefore, the total number of visits are minimum estimates. However, the data are useful in describing trends in health-care seeking for genital herpes by private patients over the 19-year period. At least five other factors may have affected the trends in genital herpes measured by the NDTI:

- 1. Recent media attention--especially since 1982--may have increased both physicians' and patients' awareness of the signs and symptoms of genital herpes, thus increasing the numbers of patients seen in recent years.
- 2. A patient seen by a surveyed physician for the first time for genital herpes may not actually represent a newly diagnosed case.
- 3. Asymptomatic infections are increasingly recognized to be common and would not be represented in the survey.
- 4. Many of those with symptomatic genital herpes may not seek medical attention at all.
- 5. The licensing of topical acyclovir by the US Food and Drug Administration in 1982 for treatment of genital herpes may account for some increase in numbers of patients seen in the most recent years of this survey.

Despite these caveats, upward trends of genital herpes among private patients probably reflect a true increase in the numbers of cases of this sexually transmitted disease nationwide.





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