INFORMATION AND GUIDANCE FOR CLINICIANS

West Nile Virus: Background Information for Clinicians

- **West Nile virus (WNV) was first isolated and identified in 1937 in a febrile person in the West Nile district of Uganda.** Prior to 1999, the virus was found only in the Eastern Hemisphere, with wide distribution in Africa, Asia, the Middle East, and Europe. There were infrequent reports of human outbreaks, mainly associated with mild febrile illnesses, in Israel and Africa. These were mostly in groups of soldiers, children, and healthy adults. One notable outbreak in Israeli nursing homes in 1957 was associated with severe neurologic disease and death.

- **Since the mid-1990s, the frequency and apparent clinical severity of WNV outbreaks have increased.** Outbreaks in Romania (1996), Russia (1999), and Israel (2000) involved hundreds of persons with severe neurologic disease. It is unclear if this apparent change in disease severity and frequency is due to differences in the circulating virus's virulence or to changes in the age structure, background immunity, or prevalence of other predisposing chronic conditions in the affected populations.

- **National surveillance has documented persons with illness caused by WNV each year since 1999**: 62 persons in 1999; 21 in 2000; 66 in 2001; 4,156 in 2002; and 9,862 in 2003. (See "Statistics, Surveillance, and Control" [www.cdc.gov/ncidod/dvbid/westnile/surv&control.htm] for current statistics.)

- **WNV is now an important public health problem in North America.** In 2002, for example, CDC received 4,156 reports of human disease cases due to WNV in 44 states. Of these, about 3,000 were central nervous system (CNS) disease cases, and the others were either West Nile fever or clinically uncharacterized. Of the cases of WNV disease of the CNS, nearly 300 (about 10%) were fatal. In addition, many survivors have experienced short-term or long-term sequelae. For data from other years, see "Q & A: Statistics on WNV Human Cases" (www.cdc.gov/ncidod/dvbid/westnile/qa/cases.htm).

- **Peak incidence of human disease in North America occurs in late August and early September.**

- **Predicting the temporal characteristics of future WNV transmission seasons based on limited reports available to date is not possible.** Despite this limitation, active ecological surveillance and enhanced passive surveillance for human cases should be encouraged beginning in early spring and continuing through the fall until mosquito activity ceases because of cold weather (where applicable).

For maps and data related to past and recent epidemics, see "Statistics, Surveillance, and Control" (www.cdc.gov/ncidod/dvbid/westnile/surv&control.htm).

For more information, visit www.cdc.gov/westnile, or call the CDC public response hotline at (888) 246-2675 (English), (888) 246-2857 (español), or (866) 874-2646 (TTY).

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