



Technical Fact Sheet

Virus:

St. Louis encephalitis virus (SLEV) is a member of the family Flaviviridae, genus *Flavivirus*. Other similar viruses are West Nile virus, Yellow fever virus, and Dengue virus.

Transmission:

Mosquitoes (primarily the *Culex* species) become infected by feeding on birds infected with SLEV. Infected mosquitoes then transmit the virus to humans and animals during the feeding process. SLEV grows in both infected birds and mosquitoes, but does not make either one sick.

Geographic distribution:

In the U.S., the majority of cases have occurred in eastern and central states, where episodic urban-centered outbreaks have recurred since the 1930s. In the rural western states, transmission has followed a more endemic pattern.

Risk factors:

All residents of and visitors to areas where SLEV activity has been identified are at risk of SLEV infection, particularly persons who engage in outdoor work and recreational activities and those living in low-income areas. SLEV infection is thought to confer life-long immunity against re-infection with SLEV.

Symptoms:

Many persons infected with SLEV have no apparent illness. People with mild illness often have only a headache and fever. More severe disease is marked by fever, headache, neck stiffness, stupor, disorientation, coma, tremors, occasional convulsions (especially in infants) and spastic (but rarely flaccid) paralysis. The risk of severe disease generally increases with age.

Treatment:

No specific antiviral treatment for SLE is available. Patients with suspected SLE should be evaluated by a healthcare provider, appropriate serologic and other diagnostic tests ordered, and supportive treatment provided.

Mortality rate:

Ranges from 5% to 30%, with higher rates among the elderly.

Prevention:

Prevent mosquito bites. There is no vaccine or preventive drug.

- Use insect repellent containing DEET, picaridin, IR3535 or oil of lemon eucalyptus on exposed skin and/or clothing. The repellent/insecticide permethrin can be used on clothing to protect through several washes. Always follow the directions on the package.
- Wear long sleeves and pants when weather permits.
- Have secure screens on windows and doors to keep mosquitoes out.
- Eliminate mosquito breeding sites by emptying standing water from flower pots, buckets, barrels, and other containers. Drill holes in tire swings so water drains out. Keep children's wading pools empty and on their sides when they aren't being used.

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