West Nile Virus Meeting Kit

WEST NILE VIRUS OVERVIEW

West Nile virus (WNV) is the leading cause of mosquito-borne disease in the continental United States. It is most commonly spread to people by the bite of an infected mosquito. Cases of WNV occur during mosquito season, which starts in the summer and continues through fall. There are no vaccines to prevent or medications to treat WNV in people. Fortunately, most people infected with WNV do not feel sick.

Mosquitos are responsible for more human deaths every single year than any other insect or animal. Mosquitos are responsible for over 725,000 deaths a year. That number of deaths is more than the deaths caused by humans, dogs, snakes, roundworms, tapeworms, crocodile, hippos, elephants, lions, wolves, and sharks combined on an annual basis. Mosquitos carry a multitude of diseases that infect and kill humans. While many of the most devastating diseases affect other parts of the world, there are a number of diseases that affect the United States. West Nile Virus is one of the more common diseases that mosquitos can carry in the United States.

Symptoms

No symptoms in most people. Most people (8 out of 10) infected with West Nile virus do not develop any symptoms.

Febrile illness (fever) in some people. About 1 in 5 people who are infected develop a fever with other symptoms such as headache, body aches, joint pains, vomiting, diarrhea, or rash. Most people with this type of West Nile virus disease recover completely, but fatigue and weakness can last for weeks or months.

Serious symptoms in a few people. About 1 in 150 people who are infected develop a severe illness affecting the central nervous system such as encephalitis (inflammation of the brain) or meningitis (inflammation of the membranes that surround the brain and spinal cord).

- Symptoms of severe illness include high fever, headache, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, vision loss, numbness and paralysis.
- Severe illness can occur in people of any age; however, people over 60 years of age are at greater risk. People with certain medical conditions, such as cancer, diabetes, hypertension, kidney disease, and people who have received organ transplants, are also at greater risk.
- Recovery from severe illness might take several weeks or months. Some effects to

the central nervous system might be permanent.
- About 1 out of 10 people who develop severe illness affecting the central nervous system die.
- Diagnosis
- See your healthcare provider if you develop the symptoms described above.
- Your healthcare provider can order tests to look for West Nile virus infection.

Treatment

- No vaccine or specific antiviral treatments for West Nile virus infection are available.
- Over-the-counter pain relievers can be used to reduce fever and relieve some symptoms
- In severe cases, patients often need to be hospitalized to receive supportive treatment, such as intravenous fluids, pain medication, and nursing care.

West Nile virus (WNV) is an infectious disease that first appeared in the United States in 1999. Infected mosquitoes spread the virus that causes it. People who get WNV usually have no symptoms or mild symptoms. The symptoms include a fever, headache, body aches, skin rash, and swollen lymph glands. They can last a few days to several weeks, and usually go away on their own.

If West Nile virus enters the brain, however, it can be life-threatening. It may cause inflammation of the brain, called encephalitis, or inflammation of the tissue that surrounds the brain and spinal cord, called meningitis. A physical exam, medical history, and laboratory tests can diagnose it.

Older people and those with weakened immune systems are most at risk. There are no specific vaccines or treatments for human WNV disease. **The best way to avoid WNV is to prevent mosquito bites:**

- Use insect repellent
- Get rid of mosquito breeding sites by emptying standing water from flower pots, buckets or barrels
- Stay indoors between dusk and dawn, when mosquitoes are most active
- Avoid areas or times of the day when mosquitos are most active when possible
- Use proper insect repellant to keep mosquitos away from you
- Wear long sleeves and pants to prevent easy access to your skin
- Indoor locations with air conditioning, doors, and window screens will have less mosquitos
- Remove standing water from around your home or work areas

INFECTION IN PEOPLE – REDUCE THE RISK

In the absence of a vaccine, the only way to reduce infection in people is by raising awareness of the risk factors and educating people about the measures they can take to reduce exposure to the virus.

Public health educational messages should focus on the following:

Reducing the risk of mosquito transmission. Efforts to prevent transmission should first focus on personal and community protection against mosquito bites through the use of mosquito nets, personal insect repellent, by wearing light coloured clothing (long-sleeved shirts and trousers) and by avoiding outdoor activity at peak biting times. In addition community programmes should encourage communities to destroy mosquito breeding sites in residential areas.

Reducing the risk of animal-to-human transmission. Gloves and other protective

clothing should be worn while handling sick animals or their tissues, and during slaughtering and culling procedures.

Reducing the risk of transmission through blood transfusion and organ transplant. Blood and organ donation restrictions and laboratory testing should be considered at the time of the outbreak in the affected areas after assessing the local/regional epidemiological situation.

FINAL WORD

While countries such as the United States and Canada do not have to worry about deadly diseases such as Malaria carried by mosquitos, there are other ones such as West Nile Virus that are a concern. Stay up to date on trends of mosquito-carried diseases. These viruses often go through cycles of being common in different areas.