

SOP-GEN-029 Mosquito Borne Illness Prevention

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1.0 Introduction

Mosquito borne illnesses are of special concern to seafarers, especially when travelling to or from the vessel or during prolonged stays in port.

TDI-Brooks encourages all crew members to use the preventions listed below to minimize exposure to mosquito bites and prevent infection. TDI-Brooks recommends but does not require their employees to take preventative drugs and will make them available to the employee upon request.

If an employee has questions about anti-malarial drugs or potential infection, they are encouraged to seek the advice of a medical professional.

2.0 Prevention

Regardless of the name of diseases carried, the goal is to prevent mosquito bites, which are the source of transmission. The best prevention is to minimize exposure to mosquitos. There are preventative medications available for malaria.

While most mosquitos are active at dusk and dawn, the mosquitos (*Aedes* species) that carry Zika are active throughout the day and can tolerate cooler temperatures.

Clothing: Wear long sleeved shirts and long pants. Clothing should not be tight against the skin but not so loose as to present a hazard when working near rotating equipment. Wear light colors. Mosquitos are more attracted to dark colors.

Hygiene: Mosquitos are attracted to carbon dioxide and foot odor. Shower as soon as possible after working in a hot environment and wear clean socks daily to avoid foot odor.

Preventative drugs: Recommended anti-malarial drugs are taken prior to arrival, during the stay and up to 4 weeks after leaving a malaria prone area. Frequency and dosage will vary depending on the drug. TDI Brooks will make preventative drugs available upon request but does not require employees to take them. The following

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drugs are proven to prevent malaria. There are no known drug treatments for the prevention of Zika, Dengue Fever or West Nile virus.

Doxycyclene: is taken one or two days before entering a malarious area and is continued for four weeks following exposure. Side effects may be increased sensitivity to the sun (exaggerated sunburns), inflammation of the esophagus when taken on an empty stomach and stomach upset.

Larium (mefloquine): once a week starting two weeks before exposure and continued four weeks after exposure. Side effects include mild neuropsychiatric symptoms, including nausea, vomiting, dizziness, insomnia, nightmares. Severe reactions such as depression, anxiety, psychosis, hallucinations and seizures have been known to occur.

Malarone: is a combination of 250 mg atovaquone and 100 mg proguanil and is taken once daily with food starting two days before exposure and continued seven days after exposure. Side effects are usually mild and include abdominal pain, nausea, vomiting, headache, diarrhea and dizziness.

Repellent: Insect repellent should be applied to all exposed skin – including neck, ears, face and back of hands. Follow manufacturer instructions. Permethrin is a repellent that can be sprayed on clothing and is good for 4 weeks and 6 washings. Repellents containing DEET can be applied to exposed skin.

Vessel Housekeeping: Quickly clean up any standing pools of water, especially in overflow catchments, near the garbage storage areas and in coiled mooring lines. Keep doors and portholes closed.

3.0 Symptoms, Diagnosis and Treatment

The symptoms of mosquito borne illness often are the same as the side effects of the preventative medications and resemble the flu. They can appear weeks or even months after departing the infected area.

Most people who contract Zika or West Nile virus (70-80%) will show no symptoms or only mild symptoms.

West Nile symptoms include headache, body aches, joint pains, vomiting, diarrhea or rash.

Zika symptoms are fever, rash, joint pain and red eyes.

Dengue fever includes high fever and at least two of the following: severe headache, severe eye pain, joint pain, bleeding nose or gums, easy bruising and other flu like symptoms.

Malaria symptoms include chills, fever, sweats, headaches, nausea and vomiting.

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Accurate diagnosis of mosquito borne illnesses can be accomplished by isolation of the virus in tissue or serum specimens or by blood or urine tests and can only be done by a medical professional.

There are drugs that can effectively treat malaria, but for Zika, West Nile fever and Dengue Fever, you can only treat the symptoms.

4.0 Return to Work

An employee that has been diagnosed by a medical professional as having a mosquito borne illness must have a post recovery physical exam and written clearance to return to work by a licensed medical professional.

5.0 Special Concerns: Zika

The primary way the disease is spread is through the bite of infected mosquitos. However, Zika virus can be spread by an infected person to his or her sex partners and from a pregnant woman to her fetus during pregnancy or around the time of birth.

To prevent sexual transmission of Zika, avoid sex or use condoms for after your return from the Zika infected area for:

Eight (8) weeks if you or your partner have no symptoms,

Eight (8) weeks for females who have symptoms,

Six (6) months after symptoms start for males with symptoms.

6.0 Resources

The CDC has much more information and resources available on mosquito borne illnesses at www.cdc.gov.

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