



**KISH P & I LOSS PREVENTION CIRCULAR KPI-LP-18-2012**  
***(Precautions against Malaria & Dengue)***

Mosquitoes are common insects in many parts of the world. They do exist even in cold climates but those that can cause acute diseases are in the tropical; subtropical & also in the Mediterranean whereabouts.

Many of the mosquito-transmitted diseases can be fatal. Falling ill far away from home can be a very difficult situation for the seafarer and his/her family and a challenge for the remaining crew and the ship manager/operator. A crew member unable to perform his/her duties due to illness may need to be sent ashore; the vessel may have to deviate from its original voyage plan in order to disembark the patient and it will be necessary to find replacement crew at short notice.

If anyone has ever been with Malaria stricken person-although he/she is not the victim- can understand the gravity of pain in which such fevers give a human being. Dengue differs to malaria in the point that the mosquitoes can be active during daytime as well.

For a seafarer with specific duties and no-one else to fill in; being on board a vessel in the middle of the ocean, the problems can be multiple. Thus, it is an important issue to increase awareness amongst seafarers and to describe the risks and precautions to be taken when calling at ports in malaria and dengue-affected areas. It is also essential that shipowners and operators are always aware of the situation in the ports called at by their vessels, that they assess the changing risks and facilitate implementation of the necessary preventive measures on board.

► **Certain facts about malaria and dengue:**

Malaria is not a new concern for seafarers but according to the “World Malaria Report 2011”, the estimated incidence of malaria globally has, fortunately, declined by 17% since 2000 and malaria mortality rates have dropped by 26%. In contrast, the global incidence of dengue has grown dramatically in recent decades and according to the World Health Organization (WHO), about half of the world's population is now at risk.

► **Information sources:**

The risk of being infected with malaria or dengue may vary within a single country and with the seasons. It is therefore important to check the current official advice every time a vessel is destined for areas where there is a potential risk of mosquito-transmitted diseases. Links to some of the recommended sources of official advice are quoted below:

The World Health Organization (WHO, [www.who.int](http://www.who.int)), is the directing and co-ordinating authority for health within the United Nations system and their website covers both malaria and dengue as part of their health topics (malaria: [www.who.int/topics/malaria](http://www.who.int/topics/malaria); dengue: [www.who.int/topics/dengue](http://www.who.int/topics/dengue)).

In addition, safety alerts concerning seasonal outbreaks of the diseases may be published on national governments’ “safe travel” websites, e.g., by national Ministries of Foreign Affairs or Health Ministries. Relevant information could also be obtained from medical doctors and local vaccination offices & through information obtained from agents or publications like Guide to Port Entry, Admiralty Sailing Directions, etc.



	<b>Malaria</b> <i>Source: WHO Fact sheet N°94, April 2012</i>	<b>Dengue / Severe Dengue</b> <i>Source: WHO Fact sheet N°117, January 2012</i>
<b>Cause</b>	Caused by a parasite. There are four sub-types of parasites and the most dangerous sub-type ( <i>Plasmodium Falciparum</i> ) is found mainly in tropical Africa.	Caused by a viral infection.
<b>Transmission</b>	Transmitted to humans by the bite of the 'malaria mosquito' ( <i>Anopheles</i> ) which is active mainly between dusk and dawn.	Transmitted to humans by the bite of the <i>Aedes</i> mosquito which, in contrast to the malaria mosquito, is active also during daytime.
<b>Incidence</b>	Most malaria cases and deaths occur in sub-Saharan Africa; however, Asia, Latin America and to a lesser extent the Middle East and parts of Europe are also affected.	Dengue is found in tropical and sub-tropical climates worldwide, mostly in urban and semi-urban areas. Dengue is endemic in more than 100 countries in Africa, the Americas, the Eastern Mediterranean, South-east Asia and the Western Pacific, the latter two regions being the most seriously affected.
<b>Symptoms</b>	Like regular influenza: fever, headache, chills and vomiting. If not treated within 24 hours, the most serious form of malaria ( <i>Falciparum</i> ) can progress to severe illness often leading to death.	Like serious influenza or malaria: high fever, headache, muscle pain and possibly rash. 'Severe dengue' is a potentially deadly complication due to plasma leaking, fluid accumulation, respiratory distress, severe bleeding, or organ impairment.
<b>Incubation period</b>	Symptoms typically appear 7 days or more, usually 10–15 days, after the infective mosquito bite.	Symptoms typically appear 4–10 days after the infective mosquito bite. Signs of severe dengue typically appear some 3–7 days after the first symptoms.
<b>Prevention</b>	Avoid mosquito bites. In high risk areas, antimalarial drugs should be taken. No vaccine is available.	Avoid mosquito bites. No vaccine is available.

► **Precautions that may be taken:**

Although the best protection against mosquito-transmitted diseases is to avoid being bitten during stay in malaria and dengue affected areas, measures implemented prior to and after stay in such areas can also contribute to reducing the risk of crewmembers becoming seriously ill. The following extracted guidelines should be taken into account:

*A) Prior to a stay in malaria and dengue affected areas:*

- Assess & evaluate risks in the ports to be called and remember that the risk of being infected with malaria or dengue varies between different areas or ports even within a country. Consider the length of stay in known risk areas, time spent at sea, in port, on rivers, etc., and possibility of shore leaves by the crew.
- Monitor & follow the WHO bulletins and similar sources for official advice as the types of diseases expected within certain areas may change with the seasons. Contact a medical practitioner if in doubt.
- Inform the crew about the risks and the precautions to be taken as well as actions to be taken if illness occurs at sea. Reiterate that a slight headache, fever and flu-like symptoms are always reasons for doubt and contacting the medical officer may be necessary.
- Evaluate, in close co-operation with a medical doctor and based on the vessel's expected exposure time in a risk area, if the crew should take an antimalarial drug.



*B) During a stay in malaria and dengue affected areas:*

- Implement measures to avoid mosquito bites: - wear protective clothing when outdoors, e.g. long-sleeved shirts, long trousers tucked into socks and a hat if thin-haired, and bear in mind that dengue-carrying mosquitos are active during daytime;
- use effective insect repellents on skin and on clothing and reapply at regular intervals as prescribed;
- stay in air-conditioned screened areas when indoors; and
- arrange for undamaged, impregnated bed-nets to be used in sleeping areas not properly screened or air-conditioned.

Most insects like to stay in warm/damp atmosphere, so making the air-conditioning work at its best capacity & keeping all openings well closed & tight will reduce the chances of mosquitoes entering the living quarters. We must also bear in mind that during the periods which a person is awake; the chances of being bitten by the insects are nearly one third of the periods being asleep. Hence we need to be more vigilant & protective during resting periods & when in bed.

- If crew members are taking antimalarial drugs, implement a method of control to ensure they take the medication at the prescribed times, e.g., via a log book.

*C) After a stay in malaria and dengue affected areas:*

- Seek medical advice over the radio if malaria or dengue is suspected on board. Normally the vessel is in port only for a short time and will most probably be back at sea when symptoms are noticed due to an incubation period of several days.
- Place the patient under close observation and undertake the required on-board treatment, preferably in close co-operation with a medical doctor. Evacuation may be the only solution if the patient's condition does not improve despite the proper on-board treatment.



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