



Dienststelle Schiffssicherheit
BG Verkehr



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Leaflet on Malaria

German: Malaria, French: paludisme, Spanish: paludismo





GENERAL INFORMATION

Transmission

Malaria is a contagious disease that is globally spread in warm climatic regions and, as "malaria tropica", is also acutely life-threatening, especially when it affects the brain. The only microscopically visible pathogen is transmitted by the bite of a certain type of mosquito (anopheles) particularly during the hours of twilight and darkness.

Symptoms

At the earliest, 7 days after the infection (pathogen transmission), and often weeks to months later, fevers with general flu-like illness, shivering, sweating, head and muscle aches, often coupled with perigastric complaints, nausea, vomiting and diarrhoea occur.

Forms of Malaria

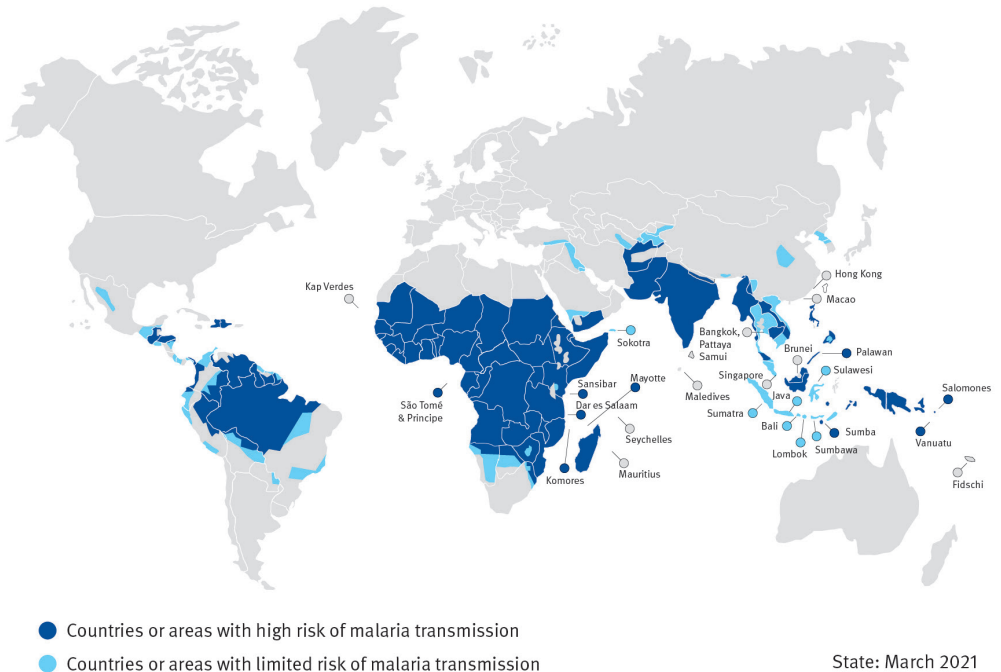
Every form of Malaria is usually accompanied by a fever. The occurrence of a malaria has to be considered when the presence in the named regions was at least 7 days and at the most 4 months ago (only when a person grew up in tropical Africa, can malaria tropica emerge later than that). A reliable differentiation from other febrile illnesses, as e.g. cold or enteritis, is not possible without a laboratory test. With every fever that occurs before or during a stay in a malaria region, the assumption that this might be the dangerous "tropical fever" (malaria tropica) has to be acted upon. It is absolutely necessary to obtain radio medical advice in such cases.



Occurrence of Malaria

Malaria occurs primarily in tropical Africa, Southeast Asia, the northern part of South America and Central America (see fig. 1). Areas with a high risk of malaria transmission where a regular prophylaxis with a drug is recommended are distinguished from areas with a low risk of malaria transmission.

Tropical Africa as well as all islands east of Lombok / Gili Islands to Papua New Guinea and the Solomon Islands in Southeast Asia are considered regions with a high malaria risk relevant for maritime shipping.



Considered as regions with a low malaria risk relevant for maritime shipping are the coasts of Haiti, Guatemala, Panama, Colombia, Suriname, French Guyana, North Brazil, Yemen, Pakistan, India, Bangladesh, Myanmar, Thailand, Malaysia, Cambodia, Vietnam, some islands of the Philippines (Basil, Luzon, Mindanao, Mindoro, Palawan, Sulu, Tawi Tawi).



PREVENTION

General Measures

With the following preventative measures and their regular application, the risk of infection, i.e. the potentially infectious mosquito bite, can be prevented by (the numbers refer to the German Medical Chest):

- wearing preferably light-coloured clothes that cover as much skin as possible during the evenings and at night;
- rubbing the skin with malaria exposition prophylaxis (no. 9.01);
- avoiding work on deck during twilight or at night in port areas;
- sealing off rooms with wire-mesh windows and doors;
- using air-conditioning;
- using mosquito-netting in sleeping places; and
- spraying insecticides (in accordance with the checklist by the "Bundesamt für Verbraucherschutz und Lebensmittelsicherheit" (Federal Office of Consumer Protection and Food Safety)) (no. 18.04).

Medicinal Measures

These are to be carried out according to the following scheme in regions with a high malaria risk if the ship's period of stay takes place close to the coast or in a port area during twilight or at night:

Drug: product for malaria prophylaxis and treatment (no. 9.02) (Malarone®)

	24-48 hours before arrival in risk area	Daily during stay in risk area	Daily for a further 7 days after leaving malaria-risk area
Adults	1x1 tablet	1x1 tablet	1x1 tablet

The tablet should be taken at roughly the same time daily with a meal or a milk product. If the person vomits within an hour after taking the tablet, intake should be repeated. The instructions on the enclosed leaflet should be observed (e.g. contraindications).



A reliable intake is prerequisite for the protective effect of the drug. One omission may compromise the protection.

Shipping companies whose ships are calling at ports in the above-mentioned malaria-risk regions should seek advice about the required quantities of supplies of the drug from the Port Health Services of the port of registry or from the responsible occupational health physician before the start of the voyage.

TREATMENT

Malaria tropica is a life-threatening disease which requires immediate treatment.

For this – ideally after a prior preparation of a blood sample and telemedical maritime assistance – adults are to be administered 4 Malarone® tablets (no. 9.02) on 3 consecutive days.

VERIFYING CASES OF MALARIA / RECOGNITION AS AN OCCUPATIONAL DISEASE

The Malaria Rapid Test (No. 9.06) serves as an aid in differentiating malaria from other (infectious) diseases. However, a negative result does not necessarily rule out malaria, as rapid tests have a higher error rate.

Reliable verification of malaria for the recognition as an occupational disease later on is only possible by taking a blood sample. This has to be taken

- in the case of all febrile illnesses which appear to indicate malaria or cannot be clearly diagnosed;
- immediately after every death for unknown reasons which occurs in connection with a febrile illness or during a tropical voyage.

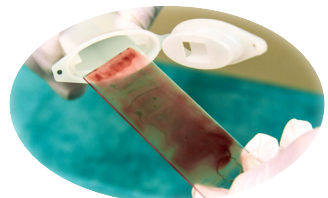
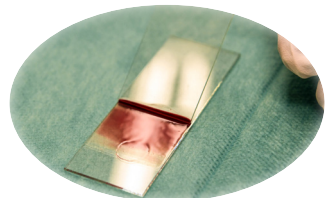
Taking a blood sample

Required material for this:

- disposable blood lancet, sterile, with injury protection (no. 9.03);
- microscope slides (glass plates, no. 9.04);
- container for microscope slides (no. 9.05); this can contain two microscope slides
- alcohol sponges for the disinfection of skin, to use on healthy skin prior to punctuation (no. 18.01.1);
- disposable examination gloves, non-sterile (no. 21.21).

The blood sample must be taken before a malaria remedy is administered.
Protective gloves must be worn when the blood is being collected.

- 1 *Clean the patient's earlobes with sterile alcohol sponges (no. 18.01.1) and allow it to dry;*
- 2 *Insert a sterile disposable blood lancet into the edge of the earlobe at its deepest point.*
- 3 *Apply the drop of blood which appears when the sides of the earlobe are pressed by lightly dabbing it against the microscope slide (no. 9.04) approx. 1 cm from the slide's edge; each 2 drops;*
- 4 *With the short edge of a second microscope slide held in a 45° angle spread out the drop of blood in one even move;*
- 5 *Let the blood samples dry in the air, with the blood side upwards (duration about 1-2 hours; protect from flies), do not accelerate the drying with heat, do not put the glass plates on top of each other;*
- 6 *Slide in the glass plates into the container for microscope slides (no. 9.05), close it and label it with name, date of birth, rank of the patient as well as place and date when the blood sample was taken.*





Send the blood sample to:

BG Verkehr
Berufskrankheiten-Abteilung
Ottenser Hauptstraße 54
22765 Hamburg

NOTIFICATION AS AN OCCUPATIONAL DISEASE

Malaria is an occupational disease which must be reported! (Merkblatt zur Berufskrankheit Nr. 3104 "Tropenkrankheiten" – leaflet on the occupational disease no. 3104 "Tropical diseases").

Aside from the blood sample, the form for the "Anzeige über die Berufskrankheit" (notification of an occupational disease):

www.bg-verkehr.de/versicherung-leistungen/versicherte-taetigkeiten/berufskrankheit
or www.bg-verkehr.de, Webcode: 16367355

with a report by the vessel's master is to be sent to the BG Verkehr.

This should contain the following details:

- when the prophylaxis with drugs began;
- which drug was administered;
- how the intake was monitored;
- duration of the intake;
- if applicable, the cumulative occurrence of cases of malaria in the ports of call.

In-service examination

For each case of illness, even if the sick person has recovered, an in-service examination shall be done by a medical practitioner recognized by the BG Verkehr immediately after the return of the ship.

**Maritime Medical Service
Ship Safety Division
BG Verkehr**

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