



Emergency Standby treatment for Malaria

Who should take a malaria standby treatment kit?

You should consider taking a standby treatment kit if you are going to a high- risk malarious area for more than 2 weeks, unless you know there is both good quality health care available within 8 hours and that the recommended treatment for malaria is reliably available and of good quality. These kits are especially useful in Sub-Saharan Africa. (Remember however that malaria can occur within 7 days of being bitten by an infected mosquito)

You should only take a kit with you if you have first had a careful explanation about how to recognize the symptoms of malaria, and how and when to self-treat. You also need to understand that standby treatment is not a substitute for seeking medical help but helps to buy you time until you can be under the best medical care available.

When should you use the kit?

Wherever possible you should seek medical advice as soon as possible if you think you are going down with malaria - even if you are taking malaria prevention tablets.

You should use this kit if you develop symptoms suggestive of malaria and

- **EITHER** you are unable to have this confirmed and treated within 8 hours
- **OR** you are able to have malaria confirmed by a health worker but the recommended malaria treatment of reliable quality is not available
- **OR** you have a negative malaria blood slide test but are still suffering from the same or worsening symptoms.

In addition standby kits can be used by travellers genuinely unable to take any malaria prevention tablet or who after careful explanation flatly refuse to do so.

Malaria symptoms are flu-like: fever and shivering, headache, nausea and vomiting, diarrhoea, aching muscles and joints, backache. If not treated promptly malaria can sometimes lead to coma, convulsions and death. However, sometimes malaria causes only very mild symptoms. Also several other conditions can mimic malaria, so obtaining an accurate diagnosis is important if at all possible, especially in children.. See The Malaria Fact Sheet for more information.

Which standby treatment should you use?

There are a number of treatments available but malaria specialists currently recommend those listed below. Options are listed in order of preference. You should usually use a different standby drug from the one you are taking for malaria prevention. **Normal adult doses** are given unless otherwise stated.

What should you do?

If you are likely to be needing a standby treatment kit, read through the options listed below and decide which one is most suitable for you. Make sure you consult a travel health practitioner to discuss the use of the kit. You can order these from InterHealth. Before you go overseas and again before taking the medication read the Patient Information Leaflets and instructions enclosed with the kits. Always try and get medical care if you suspect malaria and ensure that after starting standby treatment you seek out good medical advice as soon as possible. There is a small chance that the standby medication may not be effective, and possible that your symptoms have another cause- both good reasons for seeing a doctor.

Unless advised otherwise, you should continue taking your malaria prevention tablets when using your malaria standby treatment kit. However, Co-artemether (Riamet) should not be taken with other antimalarials, and doxycycline should not be taken whilst taking Malarone for treatment (see notes overleaf).

It is essential young children with malarial symptoms are seen by a doctor.

Leaving a malarious region

Continue taking your malaria prevention tablets for the recommended period after leaving the last malarious region you are visiting. Remember that you can get malignant (falciparum) malaria for up to 3 months after leaving a malarious area and up to 12 months or longer for so called benign malaria, which is more common than many people realise. So if you become unwell, and experience flu-like symptoms or fever get this checked out without delay at an Accident and Emergency Department or InterHealth if you are near London. You should always mention the possibility of malaria to any medical staff so that they can organise a blood slide test to be carried out.

If having left a malarious area you will not have access to expert advice if you fall ill (e.g. because you are going on holiday) take the Standby Kit with you.

RECOMMENDED MALARIA TREATMENT OPTIONS

Recommended Malaria Treatment (Normal adult dose)	Children's doses	Who for and other important information
<p>OPTION 1: Malarone tablets, 4 taken together for 3 days (total 12 tablets). Malarone is atovaquone 250mg plus proguanil 100mg. Those weighing 40kg and above should take the full adult dose.</p>	<p>11-20kg 1 adult Malarone tablet taken daily for 3 days (total 3 tablets) 21-30kg 2 adult Malarone tablets taken together daily for 3 days (total 6 tablets) 31-40kg 3 adult Malarone tablets taken together daily for 3 days (total 9 tablets) For children 9-10 Kg, 3 paediatric Malarone tablets can be used and from 5-8 Kg 2 paediatric tablets. Not to be used in children under 5 Kg.</p>	<p>Malarone is an effective treatment for adults and children in areas where there is chloroquine resistant malaria e.g. sub-Saharan Africa, the Amazon basin and Oceania. This is a very effective treatment against the most serious form of malaria, P. falciparum, but does not always cure so-called benign P. vivax and P. ovale malaria. It is not advised for those using Malarone as malaria prevention. If taking doxycycline for prevention discontinue the, doxycycline until treatment with Malarone is completed. Malarone should not be used in pregnancy or when breastfeeding infants under 5 Kg.</p>
<p>OPTION 2: Co-artemether (Riamet) tablets. The dose which should ideally be taken with food containing some fat is 4 tablets taken together followed by 4 further tablets after 8, 24, 36, 48 and 60 hours. Total 24 tablets. Co-artemether is artemether 20mg plus lumefantrine 120mg, and is one form of Artemisinin Combined Therapy (ACT), whose use is recommended by the World Health Organization.</p>	<p>There are currently recommended dosages given by the World Health Organization, see below, but in the UK it is not currently recommended.</p>	<p>This is a useful and effective standby treatment and is ideal for use in Sub-Saharan Africa. . This is suitable whatever malaria prevention is being used but malaria prevention tablets should be discontinued until treatment with Co-artemether is completed. Co-artemether should not be used in pregnancy and breastfeeding, except in an emergency. Not suitable for those with heart rhythm disorders. It interacts with certain medicines – seek advice from your doctor or InterHealth.</p>
<p>OPTION 3: Quinine tablets 300mg, 2 tablets every 8 hours for 3 days PLUS doxycycline 100mg capsules, one twice daily for 7 days started at the same time as quinine.</p>	<p>This combination is not suitable for children under 12.</p>	<p>This is an effective treatment in most areas where there is chloroquine resistance, e.g. Sub-Saharan Africa, the Amazon basin and Oceania. This is best NOT used (unless you are under medical supervision) if you are taking mefloquine as malaria prevention as occasionally quinine and mefloquine can interact. If you are taking doxycycline to prevent malaria, ideally use options 1 or 2, otherwise take 2 doxycycline per day for 7 days instead of just one tablet. This combination is not suitable in pregnancy, breastfeeding or in children under 12.</p>
<p>OPTION 4: Quinine tablets 300mg, 2 every 8 hours for 3 days followed by Fansidar 3 tablets taken together.</p>	<p>Quinine (10mg per kg of body weight) every eight hours for 3 days followed by a single dose of Fansidar as follows: 6 weeks-4 years: ½ a tablet; 4-6 years: 1 tablet; 7-9 years: 1 ½ tablets; 10-14 years: 2 tablets; Over 14 years: adult dose</p>	<p>This is less useful than options 1-3 above because there is increasing Fansidar resistance, especially in Africa. We only recommend this if you are unable to use one of the preferred options 1-3. This is best NOT used (unless you are under medical supervision) if you are taking mefloquine to prevent malaria as occasionally quinine and mefloquine can interact. This combination should not be used in pregnancy, breastfeeding or children under 6 weeks.</p>
<p>OPTION 5: Quinine tablets 300mg, 2 tablets every 8 hours for 7 days.</p>	<p>Quinine (10mg per kg of body weight) every eight hours for 7 days</p>	<p>Although this is effective few people can tolerate this because of increasing side effects, worse the more quinine you take. However, this is the only safe standby treatment for pregnant women (who on the whole should not be travelling in remote areas in malarious zones) This is best NOT used, unless you are under medical supervision, or if you are taking mefloquine to prevent malaria as occasionally quinine and mefloquine can interact. Quinine is considered safe in pregnancy and breastfeeding. Indeed it can be life saving</p>

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<p>OPTION 6: Mefloquine (one brand name Lariam) 250mg tablets 2 together followed by 2 further tablets after 6 hours. Other dosages are sometimes used, as are combinations of mefloquine with other malaria treatment drugs</p>	<p>Can be used at correct dose for weight. Read manufacturer's instructions carefully.</p>	<p>Although effective this can cause unpleasant side effects and should be used as a last resort and under medical supervision. Should not be used if you are taking mefloquine to prevent malaria. Avoid in pregnancy and breastfeeding.</p>
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We **do not recommend** Halofantrine (Halfan) as a treatment even though it is available and widely used in many parts of Africa. It can cause fatal heart problems and the World Health Organisation has issued a strong warning about its use. We also do not recommend chloroquine or amodiaquine as a treatment as there is increasing resistance throughout much of the world

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Please note that while every effort has been made to ensure the accuracy of this information, InterHealth & its staff cannot accept responsibility for any loss, illness, injury or inconvenience resulting from the use of the above information. Readers are encouraged to seek medical help whenever possible.

Information sources used for InterHealth Information sheets include
Original peer-reviewed papers

- The World Health Organization www.who.int/ith
- The Health Protection Agency UK www.hpa.org
- The National Travel Health Network and Centre www.nathnac.org
- Centers for Disease Control and Prevention USA www.cdc.gov/travel

In addition the Advisory Committee on Malaria Prevention (ACMP) has been used as a source for Sheets on malaria. www.hpa.org.uk/infections/topics_az/malaria. As research and information frequently changes there is not always full agreement between different authoritative sources.

For further reference please see, Lankester, Dr T: *The Travellers Good Health Guide* (Sheldon 2nd Edition 2002, 3rd Edition publication due Autumn 2006)