

MALARIAL PREVENTION

Malaria can be fatal. It is essential to take medical advice on which antimalarial drugs are appropriate. No medication can be guaranteed to protect against malaria in every case. Any traveller becoming ill when visiting a malarious region or up to one year after returning home should seek medical advice.

GENERAL MEASURES

In addition to taking antimalarial drugs, it is essential to take other measures to reduce your exposure to the mosquito:

- Protect against mosquito bites by wearing long-sleeved clothing.
- Use insect repellent creams containing DEET or eucalyptus.
- Spray your room or tent before going to bed with a knockdown spray (fly-spray).
- Sleep in a properly screened room or under a mosquito net.
- Use a plug-in electric insecticide vaporiser and if available use air conditioning as this helps eliminate mosquitoes in sleeping areas.

MEDICATIONS IN USE

Various different Antimalarials are in use and are described below. Different ones are recommended for different areas and it is essential you get clear advice about this. Some useful information can be found on the internet at www.fitfortravel.scot.nhs.uk

1. PROGUANIL HYDROCHLORIDE 100mg (Paludrine)

Available from pharmacist without prescription

Dosage for prophylaxis against malaria:

Take 2 tablets of Proguanil daily. Starting one week prior to departure and continuing for four weeks after return. *This medicine is most commonly taken in conjunction with Chloroquine.*

Precautions

Proguanil should be used with caution in patients with kidney problems.

Pregnant women should seek medical advice regarding malaria prevention.

Side effects of Proguanil

Mild gastric upset and diarrhoea. Mouth ulceration has been reported.

2. CHLOROQUINE 250mg (Avoclor)

Available from pharmacist without prescription

Dosage for prophylaxis against malaria:

Take 2 tablets of Chloroquine once a week on the same day. Starting one week prior to departure and continuing for four weeks after return.

Precautions

Chloroquine should be used with precaution if you suffer from liver or kidney problems or if there is a

history of epilepsy. Pregnant women should seek medical advice regarding malarial prevention. Prolonged administration of Chloroquine may rarely lead to eye damage. If any problems occur with the eyes you should seek medical advice.

Side effects of Chloroquine

Headache, stomach upsets, hair loss and visual disturbances may occur. May also provoke psoriasis. Seek medical advice should these problems occur.

3. MALARONE (Atovaquone

250mg/Proguanil100mg per tablet)

Prescription from doctor required

This medication has been developed relatively recently and is generally considered a great advance. It is known to be very effective for prevention and treatment of Malaria, particularly the resistant forms of chloroquine-resistant malaria eg P. Falciparum.

Malarone has a low risk of side effects with the great advantage that it can be started at short notice, only 24 hours prior to travel. Also It need only be taken for 7 days after a travellers return unlike other prophylactics which must be continued for 28 days. **It is therefore particularly useful for the short term business traveller.**

Malarones main disadvantage presently is that it is very expensive.

Dosage for prophylaxis against malaria: Take one Malarone tablet daily starting 24 hours before travel and continuing for 7 days after leaving the Malaria risk area. Ideally it should be taken with a fat rich meal (or at least a glass of milk or a yoghourt) as this improves absorption from the stomach.

Side effects of Malarone

When Malarone is used for malaria prevention in general side effects are uncommon and minor. When higher doses of the drug are used for treatment of malaria, headache, nausea, vomiting, mouth ulcers, abdominal pain, diarrhoea, and coughing can occur though are still quite uncommon. Convulsions and rash have rarely been reported.

Precautions

- Not suitable for women during pregnancy.
- Travellers with a known allergy to Atovaquone or Proguanil should use an alternative.
- Malarone should not be taken at the same time as preparations containing either Tetracycline, Rifampicin or Metoclopramide, since such combinations can significantly reduce the effectiveness of Malarone.
- It may not be suitable for persons with Kidney failure.

4. DOXYCYCLINE 100mg daily

Prescription from doctor required

Dosage for prophylaxis against malaria: Take one doxycycline capsule daily with food. Start 2 to 3 days prior to departure and continuing for four weeks after return.

Precautions

- Drink sufficient fluid to ensure capsule is washed into the stomach.
- Do not lie down for 30 minutes after swallowing the capsule.
- Doxycycline interferes with absorption of the contraceptive pill with initial use. **Hence you must not rely on your pill alone for the first 3 weeks of doxycycline use.** ie use condoms as well.
- Not suitable for children under 12 years, or during pregnancy.
- Travellers with a known allergy to Doxycycline.

Side effects of Doxycycline

Possible side effects can rarely include skin photosensitivity that may result in an exaggerated sunburn reaction. This risk can be minimised by wearing a hat and using good quality sunscreens. Fortunately this only affects approximately 5% of people who use doxycycline.

Women who take doxycycline for long periods may develop vaginal thrush and may wish to discuss this with their doctor before using doxycycline.

Very Approximate Costs of Medications.

Different Pharmacies will vary in price.

Medication	1 Weeks travel	2 weeks travel
Proguanil & Chloroquine	£16.00	£16.00
Malarone	£45.00	£66.00
Doxycycline	£30.00	£36.00
Mefloquine	£18.00	£22.00

5. MEFLOQUINE HYDROCHLORIDE 250mg

(Lariam) *Prescription from doctor required*

Dosage for prophylaxis against malaria: Take one Mefloquine tablet once a week on the same day, starting **two to three weeks** prior to departure and continuing for four weeks after return.

Precautions

Lariam should not be taken if

- You have kidney or severe liver problems
- Heart conduction abnormalities
- If you are allergic to quinine
- If you are taking other anti-malarial medication
- If you have had fits, a strong family history of epilepsy or severe psychiatric complaints
- Reliable contraceptive precautions should be used to prevent pregnancy whilst taking Lariam and for three months afterwards.

Side effects of Mefloquine

Dizziness, visual disturbance, nausea, vomiting, diarrhoea, abdominal pain, changes in mood, sleep disturbance. Very rarely Lariam can cause blood disorders and skin rashes. You should avoid carrying out tasks requiring a high degree of co-ordination while taking Lariam as it can cause dizziness and a disturbed sense of balance.

Ensure you are not affected in this way before driving

Psychiatric effects of Mefloquine

Travelers are always very concerned about the risk of psychiatric disturbance that they have heard can occur with Lariam. Although undoubtedly this does occur the risk is small and fortunately effects do reverse quickly when the drug is stopped. About 1 in 140 people taking mefloquine will experience **temporary** mild psychiatric side effects. More serious side effects can be expected in only 1 in 10,000 people taking this drug. Most people who get side effects will develop them after the first 2 to 3 doses. Doctors therefore now advise you to start taking mefloquine 2 or 3 weeks before you travel. Then if you do develop early side effects an alternative can be found.

For most countries (but not all) where mefloquine is advised a suitable alternative is Malarone. *There is no doubt that the risks from developing resistant malaria vastly outweigh the very small risk of psychiatric disturbance from Mefloquine.*