



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY MEDICAL COMMAND
2050 WORTH ROAD
FORT SAM HOUSTON, TEXAS 78234-6000

REPLY TO
ATTENTION OF

MCPO-NCR

20 NOV 2003

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Additional Patient Information to Accompany Each Prescription of Mefloquine (Lariam®)

1. References:

a. Memorandum, DASG-PPM-NC, 3 Oct 2002, subject: Updated Health Care Provider Information on Use of Mefloquine Hydrochloride (Lariam®) for Malaria Prophylaxis (Encl 1).

b. Mefloquine (Lariam®) package insert. <http://www.rocheusa.com/products/lariam/pi.pdf>

c. Mefloquine (Lariam®) medication guide.
<http://www.fda.gov/medwatch/SAFETY/2003/LariamMedGuide.pdf> (Encl 2).

2. This memorandum supplements the guidance provided in The Surgeon General's, 3 Oct 02 memorandum (Ref. 1.a., above), which remains in effect.

3. Mefloquine (Lariam®) has been successfully used to protect thousands of people against malaria. It is well tolerated by most people. However, it is contraindicated in some persons, so health care providers must remain aware of the indications, contraindications, warnings and adverse side effects of this medication (para. 1.b.).

4. The manufacturer revised the Lariam® Medication Guide in August (para. 1.c.). It provides important information that patients should know about the drug. This guide contains a wallet-sized information card that addresses the need to take the medication, and provides information on side effects that may necessitate discontinued use. This card, which can be reproduced locally, must be provided to each person who is prescribed Lariam® or generic forms of mefloquine.

5. Advise persons who notice symptoms such as excessive acute anxiety, depression, restlessness or confusion while taking mefloquine to seek medical care immediately for consideration of an alternative anti-malarial medication.

6. The point of contact for this information is COL P.K. Underwood, DSN 761-3160.

2 Encls

KENNETH L. FARMER, JR.
Major General
Chief of Staff

MCPO-NCR

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REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
OFFICE OF THE SURGEON GENERAL
5109 LEESBURG PIKE
FALLS CHURCH, VA 22041-3258

DASG-PPM-NC

03 OCT 2002

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Updated Health Care Provider Information on Use of Mefloquine Hydrochloride (Lariam®) for Malaria Prophylaxis

1. References:

a. US Army Center for Health Promotion and Preventive Medicine, Malaria and Mefloquine (with links). <http://chppm-www.apgea.army.mil/malariaandMefloquine/>

b. Mefloquine (Lariam®) package insert.
<http://www.rocheusa.com/products/lariam/pi.html>

c. DOD Medical Materiel Quality Control (MMQC) Message 161253Z Sep02, SUBJ: MMQC-02-1302, Important Label Changes/Lariam (Mefloquine Hydrochloride)/Updated Information Bulletin.

d. AR 40-3, Medical, Dental, and Veterinary Care, 30 July 1999.

2. Falciparum malaria remains one of the deadliest infectious disease threats to soldiers deployed around the world. Use of appropriate prophylactic medication, in addition to the DOD repellent system and barriers such as bed nets, provides optimal force health protection against this threat.

3. In many areas of the world where chloroquine-resistant malaria is found, especially Africa and South America, mefloquine (Lariam®) 250 mg provides safe and effective prophylaxis against susceptible strains of falciparum malaria, with the advantage of a weekly dosing regimen.

4. Malaria prophylaxis with mefloquine is well tolerated by most persons. In the more than 12 years since mefloquine was licensed for use in the United States by the US Food and Drug Administration, mefloquine has been safely used to protect many thousands of persons against malaria, and remains a critical element of malaria prevention for the Army.

DASG-PPM-NC

SUBJECT: Updated Health Care Provider Information on Use of Mefloquine Hydrochloride (Lariam[®]) for Malaria Prophylaxis

5. It is critically important that all Army health care providers be familiar with the proper use, contraindications, warnings, and precautions for prescribing mefloquine, especially with respect to the recent changes in the manufacturer's labeling information. These changes, summarized below and in a related MMQC message (para. 1.c.), focus primarily on neurobehavioral effects and do not represent the full clinical profile of this medication. Providers must refer to the package insert (para. 1.b.) for complete prescribing information.

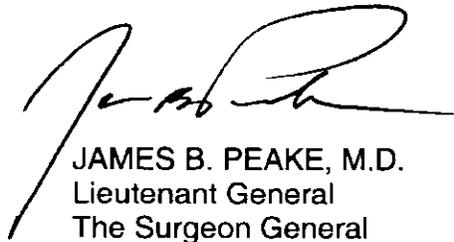
a. **Contraindications.** Use of Lariam[®] is contraindicated in patients with known hypersensitivity to mefloquine or related compounds (e.g., quinine and quinidine). Lariam[®] should not be prescribed for prophylaxis in patients with active depression or a recent history of depression; generalized anxiety disorder, psychosis or schizophrenia or other major psychiatric disorders; or with a history of seizure disorder or epilepsy.

b. **Warnings and Precautions.** When used for prophylaxis, mefloquine may cause psychiatric symptoms at a rate of one per 2,000-13,000 persons. These symptoms include anxiety, paranoia, depression, hallucinations and psychotic behavior. Rarely, these symptoms have been reported to continue after mefloquine has been stopped. Rare cases of suicidal ideation and suicide have been reported although no relationship to drug administration has been confirmed.

c. **Patient information.** Patients should be advised that if they experience psychiatric symptoms such as excessive acute anxiety, depression, restlessness or confusion, these may be considered prodromal to a more serious event related to mefloquine. In these cases, the drug must be discontinued and an alternative medication should be substituted.

6. **Adverse event reporting.** IAW AR 40-3 (ref 1.d), [para. 11-6d(9)], all known or suspected adverse events related to the administration of mefloquine will be reported to the appropriate Pharmacy and Therapeutics Committee for further review and consideration to forward to the US Food and Drug Administration.

7. The point of contact for this information is COL Robert DeFraités, DSN 761-3146.



JAMES B. PEAKE, M.D.
Lieutenant General
The Surgeon General

DASG-PPM-NC

SUBJECT: Updated Health Care Provider Information on Use of Mefloquine Hydrochloride (Lariam®) for Malaria Prophylaxis

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Rx only

MEDICATION GUIDE

LARIAM® (LAH-ree-am)
(mefloquine hydrochloride)
Tablets
to Prevent Malaria

This Medication Guide is intended only for travelers who are taking Lariam to prevent malaria. The information may not apply to patients who are sick with malaria and who are taking Lariam to treat malaria.

An information wallet card is provided at the end of this Medication Guide. Cut it out and carry it with you when you are taking Lariam.

This Medication Guide was revised in August 2003. Please read it before you start taking Lariam and each time you get a refill. There may be new information. This Medication Guide does not take the place of talking with your prescriber (doctor or other health care provider) about Lariam and malaria prevention. Only you and your prescriber can decide if Lariam is right for you. If you cannot take Lariam, you may be able to take a different medicine to prevent malaria.

What is the most important information I should know about Lariam?

1. Take Lariam exactly as prescribed to prevent malaria.

Malaria is an infection that can cause death and is spread to humans through mosquito bites. If you travel to parts of the world where the mosquitoes carry the malaria parasite, you must take a malaria prevention medicine. Lariam is one of a small number of medications approved to prevent and to treat malaria. If taken correctly, Lariam is effective at preventing malaria but, like all medications, it may produce side effects in some patients.

2. Lariam can rarely cause serious mental problems in some patients.

The most frequently reported side effects with Lariam, such as nausea, difficulty sleeping, and bad dreams are usually mild and do not cause people to stop taking the medicine. However, people taking Lariam occasionally experience severe anxiety, feelings that people are against them, hallucinations (seeing or hearing things that are not there, for example), depression, unusual behavior, or feeling disoriented. There have been reports that in some patients these side effects continue after Lariam is stopped. Some patients taking Lariam think about killing themselves, and there have been rare reports of suicides. It is not known whether Lariam was responsible for these suicides.

3. You need to take malaria prevention medicine before you travel to a malaria area, while you are in a malaria area, and after you return from a malaria area.

Medicines approved in the United States for malaria prevention include Lariam, doxycycline, atovaquone/proguanil, hydroxychloroquine, and chloroquine. Not all of these drugs work equally as well in all areas of the world where there is malaria. The chloroquines, for example, do not work in areas where the malaria parasite has developed resistance to chloroquine. Lariam may be effective against malaria that is resistant to chloroquine or other drugs. All drugs to treat malaria have side effects that are different for each one. For example, some may make your skin more sensitive to sunlight (Lariam does not do this). However, if you use Lariam to prevent malaria and you develop a sudden onset of anxiety, depression, restlessness, confusion (possible signs of more serious mental problems), or you develop other serious side effects, contact a doctor or other health care provider. It may be necessary to stop taking Lariam and use another malaria preven-

tion medicine instead. If you can't get another medicine, leave the malaria area. However, be aware that leaving the malaria area may not protect you from getting malaria. You still need to take a malaria prevention medicine.

Who should not take Lariam?

Do not take Lariam to prevent malaria if you

- have depression or had depression recently
- have had recent mental illness or problems, including anxiety disorder, schizophrenia (a severe type of mental illness), or psychosis (losing touch with reality)
- have or had seizures (epilepsy or convulsions)
- are allergic to quinine or quinidine (medicines related to Lariam)

Tell your prescriber about all your medical conditions. Lariam may not be right for you if you have certain conditions, especially the ones listed below:

- **Heart disease.** Lariam may not be right for you.
- **Pregnancy.** Tell your prescriber if you are pregnant or plan to become pregnant. It is dangerous for the mother and for the unborn baby (fetus) to get malaria during pregnancy. Therefore, ask your prescriber if you should take Lariam or another medicine to prevent malaria while you are pregnant.
- **Breast feeding.** Lariam can pass through your milk and may harm the baby. Therefore, ask your prescriber whether you will need to stop breast feeding or use another medicine.
- **Liver problems.**

Tell your prescriber about all the medicines you take, including prescription and non-prescription medicines, vitamins, and herbal supplements. Some medicines may give you a higher chance of having serious side effects from Lariam.

How should I take Lariam?

Take Lariam exactly as prescribed. If you are an adult or pediatric patient weighing 45 kg (99 pounds) or less, your prescriber will tell you the correct dose based on your weight.

To prevent malaria

- For adults and pediatric patients weighing over 45 kg, take 1 tablet of Lariam at least 1 week before you travel to a malaria area (or 2 to 3 weeks before you travel to a malaria area, if instructed by your prescriber). This starts the prevention and also helps you see how Lariam affects you and the other medicines you take. **Take 1 Lariam tablet once a week**, on the same day each week, while in a malaria area.
- **Continue taking Lariam for 4 weeks after returning from a malaria area.** If you cannot continue taking Lariam due to side effects or for other reasons, contact your prescriber.
- Take Lariam just after a meal and with at least 1 cup (8 ounces) of water.

Information wallet card to carry when you are taking Lariam.

Lariam® (mefloquine hydrochloride) Tablets

You need to take malaria prevention medicine before you travel to a malaria area, while you are in a malaria area, and after you return from a malaria area.

If taken correctly, Lariam is effective at preventing malaria but, like all medications, it may produce side effects in some patients.

If you use Lariam to prevent malaria and you develop a sudden onset of anxiety, depression, restlessness, confusion (possible signs of more serious mental problems), or you develop other serious side effects, contact a doctor or other health care provider. It may be necessary to stop taking Lariam and use another malaria prevention medicine instead.

(Continued on back)

LARIAM® (mefloquine hydrochloride)

- For children, Lariam can be given with water or crushed and mixed with water or sugar water. The prescriber will tell you the correct dose for children based on the child's weight.
- If you are told by a doctor or other health care provider to stop taking Lariam due to side effects or for other reasons, it will be necessary to take another malaria medicine. You must take **malaria prevention medicine before you travel to a malaria area, while you are in a malaria area, and after you return from a malaria area. If you don't have access to a doctor or other health care provider or to another medicine besides Lariam and have to stop taking it, leave the malaria area. However, be aware that leaving the malaria area may not protect you from getting malaria. You still need to take a malaria prevention medicine.**

What should I avoid while taking Lariam?

- **Halofantrine (marketed under various brand names), a medicine used to treat malaria.** Taking both of these medicines together can cause serious heart problems that can cause death.
- **Do not become pregnant.** Women should use effective birth control while taking Lariam.
- **Quinine, quinidine, or chloroquine (other medicines used to treat malaria).** Taking these medicines with Lariam could cause changes in your heart rate or increase the risk of seizures.

In addition:

- **Be careful driving or in other activities** needing alertness and careful movements (fine motor coordination). Lariam can cause dizziness or loss of balance, even after you stop taking it.
- **Be aware that certain vaccines may not work if given while you are taking Lariam.** Your prescriber may want you to finish taking your vaccines at least 3 days before starting Lariam.

What are the possible side effects of Lariam?

Lariam, like all medicines, may cause side effects in some patients. The most frequently reported side effects with Lariam when used for prevention of malaria include nausea, vomiting, diarrhea, dizziness, difficulty sleeping, and bad dreams. These are usually mild and do not cause people to stop taking the medicine.

Lariam may cause serious mental problems in some patients. (See "What is the most important information I should know about Lariam?").

Lariam may affect your liver and your eyes if you take it for a long time. Your prescriber will tell you if you should have your eyes and liver checked while taking Lariam.

Information wallet card to carry when you are taking Lariam.**Lariam® (mefloquine hydrochloride) Tablets**

Other medicines approved in the United States for malaria prevention include: doxycycline, atovaquone/proguanil, hydroxychloroquine, and chloroquine. Not all malaria medicines work equally well in malaria areas. The chloroquinines, for example, do not work in many parts of the world. If you can't get another medicine, leave the malaria area. However, be aware that leaving the malaria area may not protect you from getting malaria. You still need to take a malaria prevention medicine.

Please read the Medication Guide for additional information on Lariam.

Revised: August 2003

What else should I know about preventing malaria?

- **Find out whether you need malaria prevention.** Before you travel, talk with your prescriber about your travel plans to determine whether you need to take medicine to prevent malaria. Even in those countries where malaria is present, there may be areas of the country that are free of malaria. In general, malaria is more common in rural (country) areas than in big cities, and it is more common during rainy seasons, when mosquitoes are most common. You can get information about the areas of the world where malaria occurs from the Centers for Disease Control and Prevention (CDC) and from local authorities in the countries you visit. If possible, plan your travel to reduce the risk of malaria.
- **Take medicine to prevent malaria infection.** Without malaria prevention medicine, you have a higher risk of getting malaria. Malaria starts with flu-like symptoms, such as chills, fever, muscle pains, and headaches. However, malaria can make you very sick or cause death if you don't seek medical help immediately. These symptoms may disappear for a while, and you may think you are well. But, the symptoms return later and then it may be too late for successful treatment.

Malaria can cause confusion, coma, and seizures. It can cause kidney failure, breathing problems, and severe damage to red blood cells. However, malaria can be easily diagnosed with a blood test, and if caught in time, can be effectively treated.

If you get flu-like symptoms (chills, fever, muscle pains, or headaches) after you return from a malaria area, get medical help right away and tell your prescriber that you may have been exposed to malaria.

People who have lived for many years in areas with malaria may have some immunity to malaria (they do not get it as easily) and may not take malaria prevention medicine. This does not mean that you don't need to take malaria prevention medicine.

- **Protect against mosquito bites.** Medicines do not always completely prevent your catching malaria from mosquito bites. So protect yourself very well against mosquitoes. Cover your skin with long sleeves and long pants, and use mosquito repellent and bednets while in malaria areas. If you are out in the bush, you may want to pre-wash your clothes with permethrin. This is a mosquito repellent that may be effective for weeks after use. Ask your prescriber for other ways to protect yourself.

General information about the safe and effective use of Lariam.

Medicines are sometimes prescribed for conditions not listed in Medication Guides. If you have any concerns about Lariam, ask your prescriber. This Medication Guide contains certain important information for travelers visiting areas with malaria. Your prescriber or pharmacist can give you information about Lariam that was written for health care professionals. Do not use Lariam for a condition for which it was not prescribed. Do not share Lariam with other people.

This Medication Guide has been approved by the U.S. Food and Drug Administration.

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