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Malaria Chemoprophylaxis

Recently, the Section of Epidemiology was notified by an Alaskan physician working in Bangkok, Thailand that several foreign visitors, including at least two Alaskans, had been placed on inappropriate malarial chemoprophylaxis.

Brief case history

An elderly Alaska couple who travelled to Thailand considered themselves protected from malaria because their Alaska physician had prescribed and they were taking Fansidar® (pyrimethamine-sulfadoxine). The husband first became ill at a Bangkok hotel. He was admitted to a local hospital and placed in the intensive care unit with mild pulmonary edema. *Plasmodium falciparum* malaria was diagnosed and appropriate antimalarial medication begun. Fortunately, the patient recovered.

Last year, a young Australian graduate student who was taking pyrimethamine-dapsone for prophylaxis died while being admitted to a Bangkok hospital with *P. falciparum* malaria. These incidents illustrate possible outcomes of malaria chemoprophylaxis with the wrong drugs.

In general, two drugs are the mainstay of malaria chemoprophylaxis: Chloroquine (Aralen®) and mefloquine (Lariam®). Chloroquine (300 mg base orally, once a week) is recommended for travel to areas where chloroquine-resistant *P. falciparum* has not been reported. Mefloquine (228 mg base orally, once a week) is recommended for travel to areas where chloroquine-resistant *P. falciparum* exists.

Fansidar® can be carried by travelers who are using chloroquine prophylaxis and is taken to self-treat presumptive malaria if professional medical care is not available. Fansidar® is not used for chemoprophylaxis.

The need for malaria chemoprophylaxis depends not only on which country(ies) a traveler is visiting but also on the specific itinerary and style of travel. For example, in Thailand the main areas of malaria risk are forested areas along the border with Cambodia and Myanmar (formerly Burma). Because mefloquine-resistant *P. falciparum* has recently emerged in these areas, for travelers who overnight the drug of choice is doxycycline (100 mg orally, once a day). Travelers to other parts of Thailand generally do not need any drugs to prevent malaria. In addition to being given the wrong drug for malaria prophylaxis, it is likely that some travelers have been given malarial prophylaxis when it is not recommended.

Alaska health-care providers can obtain up-to-date information for foreign travelers from at least four sources:

1. The United States Centers for Disease Control and Prevention (CDC) publishes the book "Health Information for International Travel" annually. This book can be obtained from the U.S. Government Printing Office for \$6.00, telephone (202) 783-3238.
2. The CDC maintains a 24 hour a day automated telephone line for obtaining information on malaria prevention and treatment. By calling (404) 332-4555, current information will be provided by either voice or facsimile machine.
3. Consultation is available to health-care providers and the public from the Section of Epidemiology, 561-4406.
4. In Anchorage, consultation is available from the Municipal Department of Health and Social Services, 343-4800.

In addition to malaria, international travelers may be at increased risk of other diseases including yellow fever, polio, measles, hepatitis A and B, and rabies. Health-care providers with patients planning international travel need to consider prophylaxis for all these conditions.

(Reported by Henry Wilde, MD. Contributed by Michael Beller, MD, MPH.)