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harmacists frequently provide information on malaria prophylaxis but recent reports in the media have suggested that pharmacists’ advice on malaria prophylaxis is not always up to date. This article highlights new guidelines for the prevention of malaria in travellers which are to be published next week in the journal Communicable Disease and Public Health (2001;4:84). The guidelines provide the most comprehensive and up-to-date recommendations for advising travellers on malaria prophylaxis.

ADVISING TRAVELLERS
A consultation on malaria with an intending traveller should ascertain the degree of risk, emphasise the need for protection against mosquito bites, advise the need for seeking immediate medical attention in the event of a febrile illness within three months (or even a year) of leaving the malarious area, and recommend chemoprophylaxis appropriate to the risk and destination(s). Health care workers should avoid giving unnecessary medication and be aware of contraindications.

The level and duration of risk depends upon destination, duration, activities to be undertaken, and style of travel. The choice of drug will depend on previous history, pregnancy, relevant family history, and concomitant illness or medication. In deciding on the preferable chemoprophylactic regimen for a particular traveller, the following variables need to be assessed:

- Countries and places to be visited and their malaria risk. This may vary during the year and according to whether the destination is rural or urban.
- Type of accommodation to be used.
- Duration of intended stay in malarious areas.
- Intended activities (eg, beach/jungle explorations/safari), particularly between dusk and dawn, when the risk of being bitten is present.
- Style of travel (eg, business/backpacking/package-tour/visiting relations).
- Age, sex, pregnancy, intended conception, and breast feeding.
- Weight of young children — which is a better guide than age to the dose of anti-malarials.
- Previous travel and experience with anti-malarials.
- Previous reactions to anti-malarials.
- Current illnesses (renal and hepatic function, cardiac conduction, myasthenia gravis, psoriasis, fits, psychiatric disorders).
- Personal or family history of epilepsy in first degree relatives.
- History of psychiatric disorder, depression, anxiety requiring treatment.
- Current medication (anticoagulants, anti-infective, antidepressants, serotonergic, mood stabilisers, neuroleptics, beta-blockers, calcium channel blockers, ciclosporin, cyclophosphamide, gold, methotrexate, oestrogens, oestrogen/progesterone, corticosteroids).

Travellers undertaking different types of travel and activities in the same country may be exposed to a different range of risk, depending on the degree of exposure to anopheline mosquitoes between dusk and dawn. The risk of acquiring malaria is always substantial for tourists in tropical Africa.

Visiting friends and relations Malaria attack rates are particularly high among those who travel to malarious areas, for example, Asia, to visit friends and relations. Many such travellers are former immigrants who settled in the United Kingdom long ago. They might have left Asia during the malaria eradication era (1955 to 1960), when risk there was low, or they may believe that they have some persistent immunity. Such immunity fades rapidly, but compliance with prophylaxis in some of these groups is poorer than in other travellers. These travellers are often accompanied by their children, who may be at greater risk than adults of severe illness if they contract malaria. It is therefore particularly important to emphasise compliance with chemoprophylaxis. Risk is very high in West Africa and many of the comments for backpackers apply to all visitors to this area.

Backpacking Backpacking, working in rural areas, and by pony or donkey bring travellers close to the breeding and resting habitats of anopheline mosquitoes, against which they are unprotected by screens and air conditioning. It is therefore particularly important to reduce mosquito biting by the use of repellents such as diethyltoluamide (DEET) on exposed skin from dusk. Burning mosquito coils or vapourising mosquito deterrents, and sleeping under a mosquito net impregnated with a synthetic pyrethroid insecticide are also effective.

Access to medical attention might be difficult or delayed, and there is a need for standby treatment if medical attention will be over 24 hours away, as well as for chemoprophylaxis that works well in the context of local patterns of drug resistance.

Business travel Most business travellers will stay in screened or air-conditioned hotels in cities. A knockdown insecticide (for example, containing synthetic pyrethroids) should be sprayed in the hotel room each evening to kill any mosquitoes that entered during the day. Risk exists in most African cities (excluding central Nairobi and cities at high altitude such as Addis Ababa and cities in southern Africa) because the vector can flourish in suburban situations. This may occur in Indian cities due to an urban-dwelling vector (Anopheles stephensi). The main risk to business travellers is a short unexpected trip to visit a game park, the journey to have an evening meal, or to stay for some time in the countryside. Surveys show that business travellers have a substantially higher incidence of malaria than tourists, and often lower stated compliance with prophylaxis, so business travellers need to take greater care than is usual at present. Atovaquone/proguanil is now available and will be useful to cover short visits to risk areas. Those who travel on business to remote or rural areas are in the same risk category as backpackers.

ADVICE FOR PHARMACISTS
The guidelines highlight increasing chloroquine resistance so care is needed when recommending chloroquine-containing regimens.

“If pharmacists sell chloroquine and proguanil over-the-counter, they should always double check that it is the first-line recommended regimen,” says Dr Larry Goodyer, superintendent of Norham Travel Pharmacy and head of pharmacy practice at King’s College, London. “If it is not, the traveller should always be referred to their general practitioner.”

Dr Goodyer suggests that pharmacists should keep records of all sales of chloroquine and proguanil including advice given to the traveller and the itinerary the advice is based upon. This is particularly important in case travellers change their itinerary without checking whether or not chloroquine and proguanil remain the most suitable regimen and subsequently develop malaria.