# Travel medicine conference highlights

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**Highlights from the recent conference of the International Society of Travel Medicine.**

The 8th Conference of the International Society of Travel Medicine (CISTM8), attended by over 2000 delegates, was held in New York City on 7 to 11 May 2003. The 'Big Apple', a past major port of entry to the USA for millions of immigrants and refugees and now visited by millions of tourists and business people, provided an appropriate setting for a travel medicine conference as a symbol of today's 'global mobility'. The conference offered a high level scientific program to a gathering of international travel health experts and practitioners from a broad spectrum of disciplines. Plenary sessions, satellite symposia, debates, interactive keypad workshops, original papers, meet the experts, cases of the day and poster presentations were held in concurrent sessions, along with a wide-ranging exhibition of travel health-related products and organisations.

The sheer volume of information delivered at the conference precludes a detailed description of all areas, so the following is a pot-pourri of matters likely to be of interest to general practitioners.

## Certificate in Travel Health

The inaugural ISTM 'Certificate of knowledge in travel medicine' exam preceded the event. This was a gruelling procedure for the 423 examinees from 28 countries, some expert in sitting exams and some a bit rusty (such as this author). Developed by an international panel of experts, the certificate recognises excellence in individual knowledge in the area and will establish a standard in the practice of travel medicine. Successful candidates receive a Certificate in Travel Health (CTH) from the ISTM.

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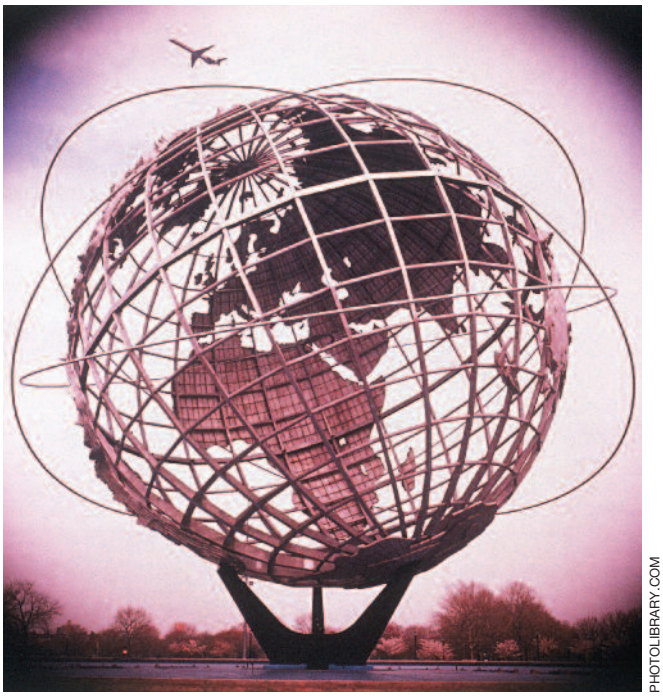

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## Keeping up to date

The recent decline in numbers of international travellers and the reasons for this (such as fear of SARS or terrorism) highlight the need for medical practitioners to ensure that they maintain their knowledge and skills in the administration of relevant vaccines and are able to access the very latest in up-to-date advice, including how to deal with security and health concerns.

The need for the practitioner to be aware not only of the general country recommendations but also of each individual traveller's 'microitinerary' and the relevant issues was emphasised at the conference, and many of the pitfalls were discussed.

## Malaria

Knowledge of the microitinerary is important when advising the intending traveller on malaria prophylaxis. Although malaria may be present in a country, it is important to ascertain if the traveller will actually be staying in malarious areas overnight – in order to decide with the traveller whether he or she should take prophylaxis, which may have side effects.

Global areas of risk of malaria per month of travel were listed, from highest to lowest, as: Papua New Guinea/Irian Jaya, Africa, South Asia, Micronesia, South-East Asia, South America and Central America. It is of note that many areas visited by tourists have an extremely low risk, such as central Thailand (approximate risk of infection, 1 in 35,000), and that the mortality rate from malaria for travellers in Africa is approximately 1 in 300,000. For comparison, the mortality rate from car

accidents at home is likely to be much higher than this.

World Health Organization (WHO) and US Centers for Disease Control and Prevention (CDC) recommendations for malaria prophylaxis were emphasised for the relevant areas. The recommendations remain with mefloquine (Lariam), doxycycline and the more expensive but shorter course of atovaquone–proguanil (Malarone).

Chloroquine (Chlorquin) is still recommended for the areas where the malaria is sensitive to this drug, and proguanil (Paludrine) can still be added as an alternative if the other regimens are not appropriate. Primaquine (Primacin) is likely to be increasingly used for prophylaxis if alternatives are contraindicated, and travellers who are treated with hydroxychloroquine (Plaquenil) for various medical conditions can use this for prophylaxis equivalent to chloroquine. Tafenoquine is a new antimalarial (not yet commercially available) developed from primaquine, and it shares the same caution to ensure the absence of severe glucose-6-phosphate dehydrogenase (G6PD) deficiency before prescribing this family of drugs. A screening test is available for detecting G6PD deficiency.

Atovaquone–proguanil is a newer, very effective, oral treatment for falciparum malaria (note, not vivax or ovale malaria) with fewer side effects and good clearance rates, although some failures have been reported. Chloroquine remains the drug of choice for treating vivax and ovale malaria. Primaquine is used to help prevent relapses of vivax and ovale malaria and should be considered for travellers returning from long stays in endemic areas, especially if they have had vivax or ovale malaria while away.

Artemether–lumefantrine (Riamet) is another newer very effective oral treatment for malaria currently used for treatment in Africa, and it has recently become available through hospitals in Australia.

## Rabies

The previously underestimated risk of rabies to travellers was emphasised at the conference. This disease has virtually a 100% case fatality rate, yet is vaccine preventable. The risk of hypersensitivity to the vaccine increases with frequency of boosters, and there is evidence that anamnestic immunity is retained up to 14 years after the primary vaccination.

The intradermal vaccine suggested by the WHO for developing countries is excellent; however, it should be noted that there are some low responders. For this reason, the NHMRC's updated Australian immunisation guidelines (due for release in August 2003) recommend that the intramuscular vaccination be used, unless it is cost prohibitive, in which case intradermal vaccination may be used but only if:

- given by a practitioner who uses the correct intradermal technique frequently (as in a travel clinic)
- chloroquine and related medications are not being taken concurrently
- rabies antibodies are measured after the vaccination to ensure adequate cover.

## Cholera

Dukoral is a newer, oral, killed, recombinant B subunit/whole cell vaccine, which is effective against cholera as well as enterotoxigenic *Escherichia coli* (ETEC). It has been shown to have 85% efficacy at six months and 60% at two years for cholera, with 60 to 73% efficacy at three months for ETEC. The nontoxic B subunit of the cholera toxin induces protective antitoxic IgA immunity and is antigenically similar to the B subunit of heat-labile toxin producing ETEC (LT-ETEC). The heat and formalin killed whole cell *Vibrio cholerae* O1 classical and El Tor biotypes in the vaccine induce mucosal IgA immunity. It is not known yet if the vaccine is effective against the O139 biotype.

Dukoral is administered at intervals of more than one week in a two-dose schedule for travellers older than 6 years of age, and in a three-dose schedule if they are aged 2 to 6 years. The WHO recommends this vaccine for the pre-emptive vaccination of populations at immediate risk of a cholera epidemic. It is indicated for travellers who will be visiting epidemic areas or spending extended periods of time in areas at risk of cholera. It is also likely to be of value for travellers who are at high risk of ETEC-induced diarrhoea. Until it becomes widely available in Australia, it is available by the Special Access Scheme, usually through travel clinics.

## Travellers' diarrhoea

A few interesting points were made about the common scourge of travellers' diarrhoea. Travellers can be reassured that acute diarrhoea from *E. coli* will usually settle within about two weeks, with or without treatment. However, diarrhoea can be a presenting symptom of malaria in 8 to 25% of cases, so this should be kept in mind for all travellers returning from visiting malarious areas. Diarrhoea is not common with schistosomiasis, the diagnosis of which can be made with a midday terminal urine and/or stool microscopy and culture, or, if it is two to three months after travel, with positive serology. If you are requesting blood tests to assist with the diagnosis of parasitosis, keep in mind that, unlike helminths, protozoa do not cause eosinophilia.

For chronic diarrhoea (defined as lasting more than two weeks), consider *Giardia lamblia, Entamoeba histolytica, Cryptosporidium parvum, Blastocystis hominis, Clostridium difficile*, HIV infection, tuberculosis and noninfective causes, noting that approximately 70% of patients have negative results on investigation. Treatment options include metronidazole (Flagyl,

Metrogyl, Metronide), tinidazole (Fasigyn, Simplotan), albendazole (Eskazole, Zentel) and nitazoxanide (Cryptaz; available on Special Access Scheme).

## Deep vein thrombosis

The risk of immobility and deep vein thrombosis (DVT) was discussed, with emphasis on the absence of evidence from prospective studies confirming risk from air travel *per se*. The standard risk factors, such as past history of DVT, malignancy, recent surgery (especially pelvic or hip) and obesity, were emphasised as being more important. A recurrent past or family history of DVT indicates the need to screen for factor V Leiden, a genetic predisposition for thrombosis. Preventive measures include ensuring adequate fluid intake, mobility and, for higher risk travellers, light-grade below-knee stockings and/or low molecular weight subcutaneous heparin within eight hours of travel or warfarin. The risks of the preventive measures should always be weighed up against the risks of DVT.

## Other issues covered

Many other travel medicine issues were discussed at the conference. These included altitude sickness, barotrauma, vasovagal and allergic reactions, fear of flying, fitness for travel, general medical conditions, injury and personal security, insurance and legal requirements, contraindications to travel, jet lag, motion sickness, psychological factors, needle phobia, and cultural, occupational and environmental factors.

## Conclusion

The recent issues of safety and security of travellers were evident in the opening address to the conference, given by Dr Karl Neumann, Editor of the ISTM website and *NewsShare* newsletter, representing the local organising committee. The address was exceptionally moving. He pointed out that his 'thank you for coming' was no ordinary thank you, 'for these are not ordinary times', and he cited the effects of fear of terrorism, threat of disease and international strife and chaos on international travel. He observed that hysteria is not a solution to disaster and that travel, with its optimism, enthusiasm and fulfilment, is a prescription for hope. Travel is 'often no more risky than staying at home' and 'important for our own development'.

The ISTM is to be congratulated on organising this event. Its 9th Conference will be held in Lisbon on 1 to 5 May 2005. To view the abstracts from the 8th Conference and for further information on the ISTM, see its website (www.istm.org). MT

*Note: Some medications discussed in the travel medicine updates are not available in Australia, but travellers may be offered these treatments overseas.*