

An Occasional Medical *Newsletter* from The Blood Care Foundation

Dear Member,

In March I had the privilege of addressing the 2nd European Conference in Travel Medicine. I am devoting this, my 21st Newsletter to highlighting, what I found to be, the most interesting topics at that conference.

Emerging Infectious Diseases

Infectious disease is responsible for 1/3 of deaths world-wide. The leading problems are:

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| 1. Acute lower respiratory tract *. | 3.5 million. |
| 2. HIV *. | 2.3 million. |
| 3. Diarrhoea *. | 2.2 million. |
| 4. TB *. | 1.5 million. |
| 5. Malaria *. | 1.1 million. |
| 6. Measles. | 0.9 million. |

* = Diseases which have problems with drug resistance.

Outbreak of Nipah virus in Malaysia, 1998 – 99. Nipah virus is a Hendra like virus, the reservoir of which is pigs and which causes encephalitis. The outbreak was initially thought to be Jap B encephalitis. The disease occurred in people who were in close contact with pigs but there is no evidence of person to person spread. Over 900,00 pigs were slaughtered to control the epidemic. In all there were 265 cases in Malaysia, with 105 deaths, and 11 cases in Singapore, with one death.

Outbreak of West Nile Fever virus in New York City during the summer and autumn 1999. This disease is a Flavivirus, closely related to Dengue and Yellow Fever. Birds are the reservoir and the vector is the *Culex* mosquito. It causes an encephalitis, which is easily mistaken for St Louis or Jap B encephalitis. This was the first time that this virus had been found in the Western Hemisphere and there were 62 cases, with 7 deaths all in patients > 67 years of age. The first clue to the identity of the disease was that it was noticed that birds, especially crows, were dying in large numbers. This does not happen with St Louis encephalitis. It is still uncertain as to how the virus spread to the USA from the geese in Israel, but possibilities are that an infected bird, person or mosquito was carried on an aircraft.

Crimean Congo Haemorrhagic Fever is a tick-borne disease. Prevention is to avoid being bitten, so wear long trousers and keep out of the long grass.

A new free journal, the Journal of Emerging Infectious Disease, is being posted on the CDC website – www.cdc.gov/incidoc.

Epidemiology and Recent Developments on HIV/AIDS

There are approximately 33.6 million people infected with HIV world-wide, of which 5.6 million were new cases in 1999. 3.8 million new cases occurred in sub-Saharan Africa and 1.3 million in Southeast Asia. In 1999 there were 26 million deaths attributable to HIV, and the cumulative mortality total is 16.3 million.

In sub-Saharan Africa the projected life expectancy has fallen from 55 – 60 years in the 1980s to 40 – 50 years in 2000. However, in Uganda, a very successful health education programme has caused a massive drop in the incidence of HIV in the 15 – 19 year age group. Similarly education has been successful in

Thailand, where the incidence of HIV in Ante-Natal Clinics has fallen from 12% to 4% between 1995 and 1999. The picture is the complete opposite in the countries of the old USSR, especially the Ukraine.

Present forms of treatment rely on the prevention of replication, so drug treatment has to be life-long or the patient will relapse. New treatments are being devised to prevent the integration of the viral RNA into the host DNA. There is no evidence that post-sexual exposure treatment with anti-HIV drugs offers any protection.

Update on Malaria Chemoprophylaxis for International Travelers

As there is not a large lucrative market for anti-malarials, the only way to get new drugs is either to find anti-malarial properties in drugs developed for the treatment of other diseases, or to rely on government funding.

In areas where there is mefloquine resistance, the best drug for prophylaxis is doxycycline (Zithromax – Pfizer) 100mg daily. However, this regimen can have gastro-intestinal side effects. Azithromycin is an antibiotic, which could well replace doxycycline. It has an efficacy of about 80%.

Atovaquone + Proguanil (Malarone – Glaxo), a 250mg + 100mg combi-tablet, is very good for the prevention of drug resistant Plasmodium falciparum. It costs about the same as mefloquine has an efficacy of 95 – 100% and it probably kills the liver phase of the parasite. It should be started before entering a malarious area and taken for one week after leaving. It is ideal for:

1. People on short trips, who are happy with a daily regimen.
2. People, who are worried by the side effects of mefloquine.

Tafenoquine (Etaquine – SKB), is a long acting anti-malarial with a ½ life of approximately one month. It kills parasites in both blood and liver cycles in a similar fashion to primaquine. It has gastro-intestinal side effects as well as causing massive haemolysis in people suffering from G6PD deficiency. The suggested regimen is 3 daily loading doses of 400mg followed by 200mg/400mg at weekly intervals. Results from clinical trials suggest that the loading dose will probably provide sufficient cover for a month and so would cover most holiday makers and short term business travel. Over 1,000 people have been recruited into the trials and the main remaining question to be answered is whether the follow-up doses should be 200mg or 400mg.

The Resurgence of Malaria in the Former Republics of USSR – Dr Guido Sabatinelli.

There has been an upsurge in malaria in the NIS and this could lead to a return of malaria to southern Europe. In 1999 there were over 34,000 cases of malaria reported in south-east Turkey. Of these approximately 20,00 were due to P.vivax. In the NIS there are grave shortages of drugs and equipment. There has also been a collapse of the infrastructure, which has been worsened in some areas by civil war. A fall in the quality of health care has led to lowered surveillance. Large population movements have brought new parasites to new areas, firstly causing sporadic cases but later leading to an epidemic.

In Afghanistan there have been 2 million cases of malaria, but in Tajikistan the number of cases fell from 30,000 in 1997 to 13,500 in 1999. 16% of the malaria was due to P.falciparum. However, there was also a typhoid epidemic. Following the Nagorno Karabach conflict, 13,000 cases of malaria were reported in the Caucasus, but malaria control in Armenia and Azerbaijan is improving after a peak in 1996/97.

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