

An Occasional Medical *Newsletter* from The Blood Care Foundation

Dear Member,

Once again we are faced with a disease, severe acute respiratory syndrome (SARS), for which there is no cure, no vaccine and the pathology of which remains basically unclear. However, the expertise of modern communicable disease physicians and the technology now available allows us to advance our understanding so quickly that it would not be worthwhile giving a commentary on this disease, as what I write is out of date before you could read it. For those of you who wish to keep abreast of developments, including case counts, affected areas, travel advisories, quarantine measures and consular restrictions, visit these two comprehensive and authoritative websites, <http://www.who.int/csr/don/en> and <http://www.cdc.gov/ncidod/sars>.

Malaria, Presentation and Outcome.

Plasmodium falciparum infections can present with mild symptoms, but can still progress to severe disease. Two recent case studies illustrate this and the presenting clinicians suggest that 3 points should always be considered. Severe malaria can occur with a low parasitaemia as the peripheral load may not reflect the total parasite load. Secondly, normal haematological parameters at presentation do not necessarily exclude a later risk of complications, and thirdly never assume that people native to an endemic region are immune. (*BMJ*. 2002;**326**:808)

Vitamin K Response.

The question as to whether vitamin K should be orally or subcutaneously in patients who have taken too much warfarin has been answered in a recent paper. In a randomised non-blinded study patients with an INR between 4.5 and 10.0 were given vitamin K 1mg either orally or subcutaneously. One day after the vitamin K was given, 58% of those receiving oral treatment, but only 28% of those having subcutaneous treatment, had a normal ratio. (*Ann.Int.Med.* 2002;**137**:251-4)

MMR Vaccine – How Effective and How Safe?

The worries raised by the publication, in the *Lancet* in 1998, of a paper, which suggested a link between autism and the measles, mumps and rubella (MMR) vaccine, has led to a marked decrease in the uptake of the vaccine. While in 1996, 92% of children had received their first dose of the vaccine by the age of 2 years, by 2001/02 this figure had fallen to 84% countrywide, with a much lower uptake in some regions. In areas where the uptake is less than 80%, there is a real threat of a resurgence of all three diseases. What are the risks associated with the MMR vaccine and how safe is it? An excellent review concludes that the combined vaccine gives highly effective protection and has the potential to eradicate all three diseases. The authors can find no evidence that MMR vaccine causes, or facilitates development of, either inflammatory bowel disease or autism. They could find no scientific evidence for replacing the present immunisation policy with one using single-antigen vaccines and finally state that “The weight of published evidence argues overwhelmingly in favour of MMR vaccine as the most effective and safest way of protecting children from measles, mumps and rubella.” (*Drug Therap.Bull.* 2003;**41**(4):25-9)

Cosmic Radiation and Air Travel.

A recent review has evaluated the health effects of cosmic radiation on frequent airline travellers as well as airline crews. Radiation doses are not only proportional to the length of the flight, but also to the altitude, as radiation levels double for every 1,470m (4,500 feet) of increasing altitude. This means that aircrew and passengers in Concorde flying at 19,300m (59,000 feet) are exposed to a radiation level 16 times as great as people in a Boeing 747-400 flying at 12,750m (39,000 feet), and so will receive a far greater radiation dose in spite of the shorter journey time. Maximum radiation exposure levels are already set for aircrew and many airlines supply their staff with radiation badges. There are no levels set for passengers and frequent business travellers who log in excess of 200 flying hours per year might now be classified as radiation workers. However, the good news is that the slight increased incidence of specific cancers in aircrews does not translate into increased risk of mortality when compared with the general population. (*J.Trav.Med.* 2003;**10(1)**:19-28)

West Nile Encephalitis.

Although the virus was first described in 1937 in Northern Uganda, West Nile fever remained a relatively benign disease for nearly 30 years. The first cases of encephalitis were noted when the virus was tried as an experimental, and as it transpired unsuccessful, treatment for advanced cancer in New York. Sporadic cases were reported but, in the 1990s the clinical epidemiology of the virus seems to have dramatically changed, with increasing frequency and severity of outbreaks, including urban disease. Apart from North America, the virus occurs in Africa, parts of Asia, Southern Europe, Russia and Israel. An excellent review by Solomon and colleagues covers the epidemiology and clinical features of infection with West Nile virus and poses a number of questions that need to be answered. How and why does the virus spread? Will it continue to cause large outbreaks in North America, to where else will it spread and how can these outbreaks be predicted and stopped? What is the reason for the change in severity of the disease? (*Brit.Med.J.* 2003;**326**:865-9)

Rabies Prophylaxis in Patient Contacts.

If you have been in contact with somebody, who subsequently develops rabies, should you be offered prophylactic rabies vaccine or immunoglobulin? On the one hand, rabies is invariably fatal, so one's initial response is to give prophylactic treatment, but, on the other hand, rabies immunoglobulin is in very short supply and so, giving it unnecessarily might well deprive somebody who actually needs it. In 1999 an expatriate, living in Shanghai, died from rabies. This prompted a demand for prophylaxis from over 50 people, many of whom had very casual transient contact with the patient in a social setting. This very quickly depleted all the local supplies of vaccine and immunoglobulin. The full details of this case were put to a panel of 20 physicians with expertise in travel and tropical medicine. They were asked whether they would have given prophylaxis to people in 3 groups, social contacts, nursing staff, who performed basic tasks, but did not have direct contact with the patient and the examining physician. Whilst it was agreed that prophylaxis was not required for the first two groups, two thirds of the panel would have offered it to the treating physician. As well as giving the case history in detail, the report discusses the cases where there might be substantial risk of transmission and will prove invaluable to anybody who is faced with this problem. (*J.Trav.Med.* 2003;**10(1)**:52-4)

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