

"DOCTOR AT SEA" a monthly Column in The Islander Magazine

Malaria

The statistics on malaria are astounding. Over one million deaths each year and over 500 million cases - one child dies from malaria every thirty seconds in Sub-Saharan Africa. These figures dwarf the statistics for many other diseases which receive far more publicity. This is often the case with conditions which affect poorer societies and for which richer visitors can take preventive medication when spending time in endemic parts of the world.

Malaria was back in the news in May with reports that evidence of drug resistance is beginning to emerge in Cambodia. Previous examples of drug resistance have started in Cambodia then spread with massive consequences for Africa. Cambodia seems to have the right conditions to hatch the problem of drug resistance with a poor public health system and unscrupulous dealers who dilute active ingredients with filler to increase profit but weaken potency. The resulting half-hearted therapeutic action accelerates the generation of resistant species.

About a half of the world population is at risk of malaria infection and there is still no vaccine available to control the problem more effectively. Vaccine development is hampered because the disease is caused by five different members of the same family of Plasmodium parasites which cause various degrees of illness but also mutate frequently and thus present a moving target for vaccine producers.

The good news is that the world's first malaria vaccine could be available as soon as 2011! A trial has started a few weeks ago in Tanzania, to involve 1,200 infants and children, and eventually it will involve up to 16,000 patients in seven African countries. The vaccine, which has been under development for seventeen years by GlaxoSmithKline (GSK), is the first to reach this far in the development process and normally about 80% of vaccines which reach this stage go on to full market production.

So there is a race in progress with monumental implications for the populations traditionally affected by malaria. In the meantime the best we can do is to avoid getting a bite from an infected mosquito and take the appropriate preventive medication for whichever area we intend to visit - and hope that there is effective treatment available if we succumb to the illness.

Avoidance of bites takes common sense precautions like wearing long sleeves and long trousers and using insect repellent on exposed skin and avoiding the outdoors at dawn and dusk, especially near areas of water - a mosquito net at night might seem quaint but is much better than itchy bites whether infected or not.

The preventive medication needs to be taken for up to a week before entering an endemic area and for a week or two afterwards, depending on the particular medication. This prolonged administration is required in order to catch the parasite at the different stages in its life cycle. When a mosquito bites an infected person, a small amount of blood is taken and this contains the parasite. This is transmitted to an uninfected person at the next bite. The parasite hibernates in the liver then is released into the blood stream causing the classical malaria fever and illness. This continuing activity can go on after leaving an endemic area and hence the need for ongoing prophylaxis even when further infected bites are not possible.

The advice on appropriate malaria prophylactic agents is now widely available, free of charge, on the internet on a number of travel/public health websites, for example the UK Government site www.fco.gov.uk and the US Government site www.cdc.gov

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