

An Occasional Medical Newsletter
from The Blood Care Foundation
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Dear Member

There is an old saying in Transfusion Medicine that sometimes “the best transfusion is no transfusion”. Another saying is that “Good doctors know how to transfuse. Better doctors know when to transfuse. The best doctors know when not to transfuse.” The value of knowing when, and when not, to transfuse was brought home to me when I was surfing the net today and came across a study published online as an “early view” in the *Journal of Pathology*. It appears that more people than had been previously thought could be incubating variant Creutzfeldt-Jakob disease (vCJD). Having examined nearly 13,000 anonymised appendix and tonsil samples, the authors estimate in those aged between 10 and 30 years the incidence as 237 per million (95% CI, 49-692 per million). (doi: 10.1002/path.1580; www.interscience.wiley.com/thejournalofpathology)

International Travel and Health.

The 2004 edition of the WHO publication, *International Travel and Health* (The Green Book) is now available, but is only being published on the website www.who.int/ith. This website edition will be regularly updated, but already contains revised maps for cholera, dengue, hepatitis C, Jap B encephalitis, malaria and polio and revised health appreciations for Belize, Brazil, Cambodia, Columbia, Ecuador, French Guiana, Greece, Guiana, India, Korea, Mauritius, Morocco, Oman, Philippines, Sri Lanka, Surinam, Tajikistan and Vietnam. The 2005 edition, which will include all the web updates from this year, will be published as a printed version in the first quarter of next year.

HIV Updates in China and India.

India, with a population of more than a billion, and with a larger number of people living below the World Bank poverty line than any other single country, has roughly 3.8 to 4.6 million HIV infections. Heterosexual transmission accounts for 85%, but in some areas injected-drug use has also allowed the disease to gain a devastating foothold. In China the prevalence of AIDS in the country's population of 1.3 billion is still relatively low. However, some outside experts believe the epidemic is poised for a surge in growth. HIV research and treatment appear finally to have moved to the top of the government's agenda. Yet China still faces staggering problems in treating the country's estimated 840,000 HIV infections, the victims of which include injecting drug users, sex workers, and tens of thousands of paid blood donors infected during the 1990s owing to unsafe collection practices. (*Science* 2004;**304**:504 & 1430).

A New Perspective on Influenza Pandemics.

Three papers in a recent edition of *Science* have shed light on the way in which the avian influenza virus underwent a crucial structural change which resulted in the 1918 pandemic killing more than 20 million people world-wide. The haemagglutinin (HA) protein molecule, which protrudes from the surface of the virus as a series of spikes, enables it to lock onto receptors on the surface of cells in the body, thereby allowing it to gain access and infect the cell. Human and bird viruses interact with different receptors, which means that normally the avian virus cannot infect humans. By using material from the body of an Inuit woman found buried in the Alaskan tundra, and preserved samples from US soldiers who had fought in the First World War, Gamblin and colleagues from the Medical Research Council have identified the structural change in the HA which first allowed bird to human and, subsequently, human to human transmission. Although this will not have any immediate effect on the current outbreak of chicken flu it will allow changes in the virus to be tracked for public health purposes. (*Science*. 2004;**303(5665)**:1838-42, 1787-8, 1866-70)

The Old Way of Working may be the Best.

Until 1997 the Mayo Clinic required hand-written identification of the patient by the clinician in addition to the standard paperwork. In 1997, the hand-written form was eliminated and within 2 years the risk of an error rose from 1 per 10,000 to 6 per 10,000. The old system was brought back in 1997 but it was not until 2001 that the error rate returned to the original level. The authors conclude that the lesson is to have an effective error identification system. (*Mayo Clinic Proceedings*. 2003;**78**:1357-9)

SARS.

Last year the world economy suffered a major setback following the outbreak of Severe Acute Respiratory Syndrome (SARS). Since then a great deal of research has been performed and critical reviews of the treatment regimens, which were used empirically during the emergency, have been made. One of the most important findings is ribavirin was probably more harmful than beneficial as it caused significant anaemia, haemolysis and liver dysfunction. Another significant finding was that more than 10% of the Hong Kong patients who were treated with high dose corticosteroids developed avascular necrosis of the hips and knees. As this phenomenon is not seen in patients given a high dose corticosteroid regimen during rejection of transplanted organs, it suggests that the SARS virus may be a contributory factor itself. Controlled trials are now being performed in Hong Kong to attempt to find the best treatment, with lopinavir/ritonavir combined with high-dose methylprednisolone appearing to be the likely choice. (*J.R.Coll.Physicians Edinb*. 2004;**34**:9093)

Tetanus Treatment.

In a prospective, randomised controlled trial De Barros and colleagues evaluated treating 120 patients with tetanus with either intratheca and intramuscular injections of antitetanus immunoglobulin or solely intramuscular injections. The clinical condition of those treated with the combination improved more quickly, spasms were shorter and artificial respiratory assistance could be discontinued earlier. (*Brit.Med.J.* 2004;**328**:615-7)

HIV Incidence and Mortality.

WHO have reported that AIDS is the leading single cause of death around the world in adults aged 15 to 59 and that in 2003, 3 million people died of AIDS related diseases. In addition there were over 5 million new people infected with HIV. In sub-Saharan Africa, especially Botswana and South Africa, the AIDS epidemic has nearly halved the life expectancy during the last decade from 60 years to 35 years. Africa has the highest incidence of HIV with one person in 12 being infected, of whom about 90% are unaware that they are carrying the disease. The *World Health Report 2004* can be accessed at www.who.int/whr/en/2004.

Road Deaths.

Nearly 1.2 million people die on the world's roads each year and this figure is likely to rise by 65% over the next two decades according to the WHO report "A 5-Year Strategy for Road Traffic Injury Prevention". Britain has the safest roads in the world with an annual mortality of 5.9 per 100,000 inhabitants. When considering the need for blood transfusion, this should be compared with rates of 11 in the EU as a whole, 15.2 in the USA, 28.3 in Africa and over 42.2 in Latin America. The full report is available at www.who.int/world-health-day/2004.

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Michael JG Thomas MA, MB, FRCP (Edin), DTM&H
Clinical Director