



NEWS

INTERNATIONAL TRAVEL LINKED TO INCREASED STIS WORLDWIDE

The ever-growing volume of international travel – whether on business or for leisure purposes – is responsible for increased incidence of sexually transmitted infections (STIs), including human immunovirus (HIV), across the globe. This is the premise of an article published in the 24 July 2004 edition of the *BMJ*. Holidays provide an opportunity for increased sexual mixing; sex with a new partner while away from home exposes the traveller to different sexual networks and therefore different health risks – especially where intercourse is unprotected.

The health risks associated with these behavioural trends are highlighted by the alarming increase in the incidence of bacterial STIs and HIV in the UK. More rapid change of partners, lack of condom use and consumption of alcohol while on holiday raises the risk profile. Not only are people potentially exposed to new disease variants to which they have no natural resistance, but the infections acquired abroad will be transmitted onward in their home country upon their return.

The risk of HIV infection is increased in areas where the prevalence of HIV infection is high – notably sub-Saharan Africa as well as the Far East (especially Thailand), India, Latin America and the Caribbean.

Many international travellers appear ignorant of the situation, or are prepared to hazard the risk. With this in mind, the article's author recommends that players in the travel industry endeavour to inform tourists on the health risks of casual holiday sex, by providing advice regarding the prevalence of STIs/HIV at their holiday destinations, recommending vaccination against hepatitis A and B, encouraging safe sex, and raising awareness of the specialist STI treatment centres, if required.

Source: Medinfo www.travelclinic.co.za

UK DOUBLES GLOBAL FUND PLEDGE FOR NEXT 3 YEARS

UK Prime Minister Tony Blair has announced a new pledge of £154 million over the next 3 years to the Global Fund to Fight AIDS, Tuberculosis and Malaria. This new pledge effectively doubles the UK existing pledge for 2005 - 2007.

The new pledge forms part of the £1.5 billion scale-up over 3 years of the UK's bilateral and international commitment to tackling AIDS that was announced by the Chancellor of the Exchequer, Gordon Brown.

The UK has been a key donor to the Global Fund since

making one of the very first pledges at its founding in 2001. The UK has also been a strong supporter of the Global Fund through advocacy at the highest political level. This will be of particular importance in 2005 when the UK will assume the presidency of the G8, during which the UK will launch – together with other countries – the new International Finance Facility (IFF). The proposed IFF would front-load donor commitments and leverage additional money from the international capital markets by issuing bonds, based on binding long-term donor commitments.

At a working breakfast at No 10 Downing Street, Professor Feachem committed the Global Fund to a close working relationship with the UK government in its efforts to control the great infectious diseases in the world's poorest countries and in the launch of the IFF next year.

The Global Fund's resource needs for 2005 are currently estimated at US\$3.5 billion, based on new rounds of funding applications every 9 months and ongoing renewals of existing programme funding. Globally, it is estimated that next year HIV/AIDS treatment and prevention alone will cost US\$12 billion, rising to US\$20 billion by 2007. The Global Fund is expected to fulfil a major portion of this need.

EARLY WARNING SIGNS MAY SIGNAL PRESENCE OF MILD COGNITIVE IMPAIRMENT

Difficulties in performing more challenging cognitive tasks, such as managing one's finances and medications, preparing meals and travelling independently, could be early warning signs that indicate the presence of mild cognitive impairment (MCI), according to Emory University researchers. Other more basic and well-rehearsed daily tasks, such as bathing, grooming, and dressing, can also decline in patients with MCI, but to a lesser extent. The findings were presented at the 9th International Conference of Alzheimer's Disease and Related Disorders in Philadelphia.

MCI is a term described as a subtle decline in thinking abilities. A person with MCI, for example, may experience memory problems greater than normally expected with ageing, but that person does not show other symptoms of dementia, such as impaired judgment or reasoning, according to the Alzheimer's Association.

Little research has been conducted on whether well-rehearsed activities of daily living (ADLs) such as feeding, dressing, grooming, walking, bathing and toileting and instrumental activities of daily living (IADLs) – laundry, shopping, transportation, driving, meal preparation, managing medications and finances are compromised early in the disease process.



Therefore, Emory researchers, led by Felicia Goldstein, associate professor of neurology at Emory University School of Medicine, looked at the decline in ADLs and IADLs in patients with MCI, compared with a group of patients with Alzheimer's disease (AD) and a control group. Researchers retrospectively reviewed the histories of 96 patients over a 6-month period who filled out questionnaires during an evaluation with a neurologist specialising in the diagnosis and treatment of AD and MCI.

'We found that while less impaired than those diagnosed with Alzheimer's disease, patients with MCI demonstrated a compromised ability to perform IADLs when compared to the control group (no cognitive impairment),' says Dr Goldstein. 'Therefore we are learning that it is critical for physicians to take note of any decline of IADLs during neurological exams. These markers of decline are important so early drug intervention and family education and counselling can begin.'

There was also a trend for MCI patients to show some difficulties in activities of daily living, although not as significant as AD patients.

According to Dr Goldstein, 12 - 18% of patients with MCI develop Alzheimer's disease each year. 'If we can recognise the early onset of MCI, we can start patients on medications immediately and keep them as independent as possible for as long as possible,' Dr Goldstein explains.

A PATHWAY TO BLOCKING AUTOIMMUNITY

By reprogramming cells in the immune system, a team of scientists led by a Howard Hughes Medical Institute (HHMI) international research scholar has found a way to boost production of natural killer T cells, with long-term potential for fighting diseases in which the body attacks its own cells. Natural killer T (NKT) cells maintain the immune system's balance between destruction and tolerance, a mechanism that is off kilter in autoimmune diseases such as type 1 diabetes and irritable bowel disease.

'If we can regulate the level of NKT cells, we have a chance of slowing down the process of type 1 diabetes,' said team leader László Nagy, HHMI international research scholar and a molecular biologist at the Research Centre for Molecular Medicine, University of Debrecen, Hungary. He and colleagues from the Research Centre collaborated with a scientist from Albert Einstein College of Medicine in New York to do the series of experiments, which was published in the July 2004 issue of the journal *Immunity*.

After finding that a transcription factor called PPAR-gamma is expressed in dendritic cells – the immune system's first responders – Nagy and colleagues used a drug called rosiglitazone to increase PPAR-gamma activity. The additional

PPAR-gamma activity prompted immature dendritic cells to develop into a form that could activate NKT cells specifically.

Dendritic cells wait in peripheral tissue, such as the skin, ready to engulf foreign invaders or dying cells. Once they take up fragments of these cells, they migrate to the lymph nodes, where they prime T cells to mount a specific immune response against that antigen. The type of immune response induced varies depending on the form of dendritic cells.

Nagy believes his group has found a way to make dendritic cells that favour recognition and tolerance of self-preventing, for example, the destruction of the insulin-producing beta cells of the pancreas that occurs in type 1 diabetes.

Source: <http://www.hhmi.org>

STUDY REVEALS HIGH BURDEN OF PERIPHERAL ARTERIAL DISEASE

High-risk groups, such as the elderly, current smokers, African-Americans and people with reduced kidney function, are at high risk for peripheral arterial disease (PAD), according to a study by researchers from the Johns Hopkins Bloomberg School of Public Health.

The study provides nationally representative estimates for the prevalence of PAD and the first solid numbers on who is most affected by the disease in the general population. The study warns that PAD is a risk factor for cardiovascular disease and mortality. Common symptoms of PAD include cramping in the leg muscles when walking. The study is published in the 19 July 2004, rapid access online edition of *Circulation: Journal of the American Heart Association*.

Elizabeth Selvin, MPH, the study's lead author said, 'The current recommendation is for only those people over the age of 50 who have diabetes to obtain screenings for PAD. Our study suggests that there are other high-risk groups who might also be considered for screening.'

Data on ankle brachial blood pressure, a method for detecting PAD, for 2 174 people aged 40 and over were analysed by the study authors. The data were obtained from the 1999 - 2000 National Health and Nutrition Examination Survey, which is an ongoing, cross-sectional survey of the civilian, non-institutionalised US population.

The researchers found that PAD affects over 4% of adults aged 40 and over, which is about 5 million people. Over 14% of adults 70 and over have PAD. In addition, African-Americans are more than twice as likely to have PAD as Caucasians. Current smokers, diabetics and people with reduced kidney function are all at a greater risk of having PAD.

The researchers also noted that more than 95% of people with PAD had one or more traditional cardiovascular risk factors, such as hypertension, high cholesterol, smoking or



diabetes. 'The presence of PAD points to a high risk of coronary heart disease. People with PAD should have their cardiovascular risk factors treated aggressively,' Selvin said.

Source: <http://www.jhsph.edu>

CORONARY ARTERY BYPASS SURGERY NOT A RISK FACTOR FOR DEMENTIA

Those undergoing bypass surgery can be heartened, lead investigator says

A study conducted by Mayo Clinic found that fears surrounding a connection between coronary artery bypass surgery (CABG) and dementia are unwarranted. The link between CABG surgery and development of long-term cognitive decline has been controversial in medical literature.

'What we found is that in an observational study of residents of Rochester, Minn., CABG surgery was not a risk factor for dementia,' says David Knopman, MD, Mayo Clinic neurologist and the study's lead investigator. 'It was reassuring that the surgery was not associated with increased risk of dementia.'

This study took a unique approach to this disputed topic. 'In the literature on the long-term outcome of CABG surgery, most work focuses on those who have had the surgery, but there often isn't a suitable comparison group,' says Dr Knopman. His study started with dementia patients and worked backward to find out whether these patients were more likely to have previously undergone CABG surgery and compared them with the rate of CABG surgery in a non-demented control group.

Dr Knopman explains that his patients often raise the issue of a dementia-heart surgery connection. He says he can now respond that his study indicates that the heart surgery did not directly cause the memory issues. Memory problems may, however, be due to complications experienced as a result of the CABG surgery, he says. If a patient had no complications due to the surgery, one would look to other causes of the memory disorder rather than the bypass surgery.

The question, then, says Dr Knopman, has been, 'Could the CABG have a long-term consequence, even if the patients recovered without incident?' It's been thought that perhaps the bypass procedure itself, whether it caused acute confusion or not, could damage the brain and reduce the cerebral reserve for being able to tolerate future diseases. The arterial blood going from the heart to the brain is being manipulated in CABG surgery; it has the added potential for causing embolisation from heart to head. Dr Knopman said their findings do not support uncomplicated CABG surgery causing later dementia.

However, his study does not discount the existence of short-term cognitive issues post bypass surgery. 'Our study doesn't at all speak to short-term cognitive problems and CABG surgery – that wasn't what we studied, and we can't comment about that at all from this research,' he says.

The researchers used the Rochester Epidemiology Project medical records linkage system to identify dementia cases for 1990 - 1994. Dementia was defined by the criteria of the *Diagnostic and Statistical Manual for Mental Disorders*, 4th edition. Postoperative confusion that later ceased was excluded. All dementia cases were then matched by age and sex to control cases that were dementia-free in the year of dementia onset in the dementia cases. In the 5-year period studied, there were 564 dementia cases. Of these, 21 had undergone CABG before developing dementia. In the control group, 23 people had undergone CABG surgery.

Source: <http://www.mayo.edu/>

ANNUAL REMINDER NEEDED FOR MAMMOGRAPHY

Health care providers need to take the initiative and encourage all women over age 40 to have annual mammograms, according to Stephen A Feig, MD, who helped develop the 2003 American Cancer Society guidelines on breast cancer screenings.

At a glance:

- the health care industry is not reminding enough women to have annual mammograms
- annual mammograms lead to early detection of breast cancers, when they are most curable and breast-conservation therapies are available
- the percentage of women having mammograms is on the rise, but 1 in 3 American women over age 40 has not had a mammogram in the last 2 years.

'If dentists can send out postcards for teeth cleanings, women should also receive reminders for annual screening mammography,' said Dr Feig. He spoke at a Radiological Society of North America (RSNA) media briefing on women's breast health. A Swedish study showed death rates from breast cancer have dropped by as much as 50% because of mammography. Dr Feig is calling on primary caregivers, women's health specialists, radiologists and oncologists to assist in a massive education effort.

Dr Feig also encouraged women to continue having a yearly mammogram regardless of their advancing age. The American Cancer Society guidelines have no upper age limit for mammography. Dr Feig said that as long as a woman is in reasonably good health and would benefit from early cancer detection, she should continue to be screened with mammography.

'The breast cancers we are finding today are much smaller than they were years ago,' Dr Feig said. 'This means that they are easier to cure and there is a greater choice of therapeutic options for women, including breast conservation.'

Dr Feig pointed to some other signs that improvements are being made in mammography:

- Among women age 40 and older in the USA, 70% have had mammograms during the last 2 years, compared with 67% in 1998 and 29% in 1987, as reported in a 2003 study.
- Swedish researchers concluded in 2002 that the impact of organised mammography was responsible for reducing breast cancer deaths by 50%.
- In 2002 the American Cancer Society convened an expert panel to review results of clinical trials and other new evidence related to the screening mammogram, including reports that challenged the value of mammography; the panel concluded that research continues to show a significant mortality reduction due to mammography screening.
- Twenty to 40% of all breast cancers detected at screening today are ductal carcinoma *in situ* (DCIS), which was rarely detected until the advent of mammography.

‘Our challenge now is to meet an increasing demand for mammography as the population of women over the age of 40 increases,’ Dr Feig said.

Source: <http://www2.rsna.org>