

AIDS: Epidemic bell ringing

MD RAJIB HOSSAIN

The battle against AIDS has taken in many directions over the last three decades. HIV infection continues to grow rapidly among high risk groups and there is concerning evidence of increasing new HIV infection rate despite prevalence rate said to remain low.

Bangladesh has been identified as one of the five countries in the Asia-Pacific region where HIV/AIDS infections are rising. It was revealed at the recent 8th International Congress on AIDS in Asia and the Pacific (ICAAP8) in Colombo 2007. This report gives us real cause for concern.

Experts are predicting that the AIDS pandemic could be set to explode in the country. They identified political instability, human trafficking into prostitution, stigmatisation of those infected, conservative social attitudes and most importantly intravenous drug use as the key obstacles in the fight against the spread of HIV and make our people more vulnerable to HIV infection.

"In our country, HIV has turned into a concentrated epidemic among injecting drug users (IDUs). Spreading of HIV at a rate of 5 per cent among the high-risk groups is considered as concentrated epidemic. In 2000 the rate of HIV infection among IDUs was 1.4 per cent, in 2004 it raised to 4.9 per cent and in 2006 it reached to 7.1 per cent," said Dr Yasmin Jahan, a consultant of the National AIDS/STD Programme (NASP).

"Ironically the IDUs are the very people who supply blood for transfusions, thus fuelling the risk of spread to the generalised population. The trend illustrates

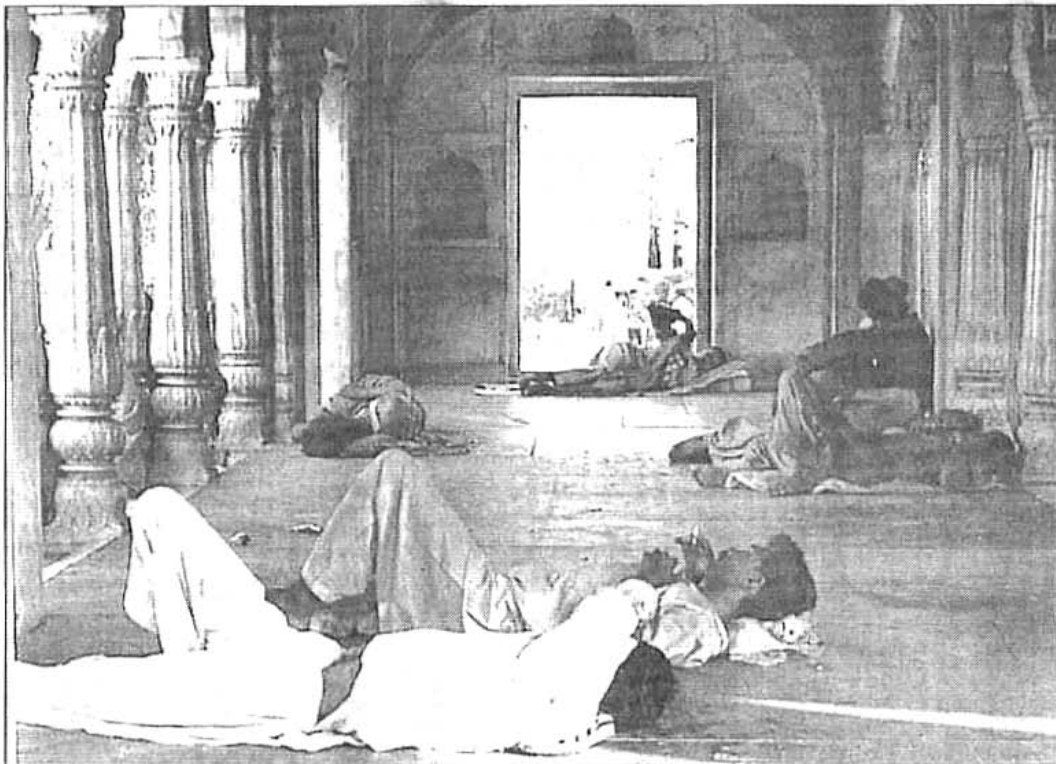
a risky growth which needs strong intervention without undue prolongation," she added.

"All sorts of high risk behaviour such as sharing of needles and syringes, resorting to drug use through injection, multiple sex partners and having coming sex are prevalent among IDUs and make them the most vulnerable to spread infection. Current intervention programmes for the IDUs provided by different organisations can rehabilitate only a few portion of the 4.6 million IDUs in the country. This programme should be boost up immediately," Dr Yasmin pointed out.

According to the government statistics, a cumulative total of 874 cases of HIV/AIDS has been confirmed and reported as of 31st December 2006. A total of 240 AIDS cases were detected so far of which 109 had already died. Government agencies estimate that nearly 7,500 people are infected by HIV/AIDS. However, World Bank figures that nearly 12,000 people are affected by HIV in Bangladesh, with around 700 deaths in the past year.

A government survey found that out of 216 new HIV positive cases identified in 2006, unemployed people were on top of the list at 39.35 per cent followed by housewives at 21.29 per cent and businessmen at 10.18 per cent. The data shows that unemployment is also causing spread of HIV/AIDS.

"All the statistics regarding HIV are based on high risk population. Nobody knows the actual condition of HIV infection among general population, as we have no data. The continued focus on high-risk groups has created a



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false sense of security and complacency in the general population including policy makers.

Bangladesh has many suspected unreported cases because of social stigma in both rural and urban communities. Many people living with HIV/AIDS are unwilling to be tested and even though there are private and public laboratories carrying out HIV testing. Among the high-risk groups HIV testing is also challenging as they have their right to give consent and nothing should not be done against their will to protect their right.

The daunting epidemic bur-

den and momentum, however may be masked by the large population leading to low reported prevalence, which has resulted in considerable complications among government and developmental stakeholders. This is a key challenge fighting HIV/AIDS," expressed Dr Mozammel Hoque, an HIV adviser of United Nations Office on Drugs and Crime (UNDOC).

"Another major concern in the region, in the context of HIV/AIDS, is the large scale of movement of people within and across national borders and trafficking of women and children.

Bangladesh has been reported as one of the top countries having the highest incidences of trafficked women who are highly vulnerable to HIV/AIDS. This sector remains relatively under focused and there is no strong measure to curb trafficking.

Many countries require people to get mandatory testing for HIV infection before travelling but for those returning from countries with high HIV/AIDS prevalence have no arrangement for voluntary counseling which is badly required in present situation. There is evidence of high rates of HIV transmission to

wives from their husbands after their return from abroad", he added.

Lack of proper knowledge and risky sexual behaviour on HIV/AIDS facilitates the deadly virus to spread at an alarming rate. According to the existing data on knowledge and behaviour, only 17 per cent of the most-at-risk populations have correct knowledge about prevention and most people misconceptions on HIV/AIDS.

A survey among adolescents and young people (15-24 years) in 2005 revealed that only one out of three males in urban and one out of four in rural areas had correct knowledge of HIV/AIDS. Nearly 59 per cent of married women and 42 per cent of men of age 15-54 group have no idea as how to avoid HIV.

Statistics on commercial sex workers also shows that although these women have every intention of using condom and understand the risk of not protecting themselves. In most cases it was found that their clients refused to use condoms.

Rakhi, (not a real name) a sex worker from a city suburb says, "Most of my clients do not enjoy sex with a condom. Since they are buying sex, they rule the business".

Many experts point out that a decade ago, India had almost the same low level status but it now has an uncontrollable epidemic of HIV/AIDS. The Indian government was initially in denial view regarding the fact that India could have so many people living with HIV/AIDS.

Experts doubt that Bangladesh may not remain as low prevalent country for long. We should get prepared to take action now.

Experts issue new physical exercise guidelines

REUTERS, Washington

Adults should engage in moderately intense exercise for at least 30 minutes five days a week or vigorous exercise at least 20 minutes three days each week, experts recommended.

Two leading health groups issued new guidelines on physical activity, updating influential recommendations issued in 1995 while also crafting advice tailored specifically for those 65 and older.

The guidelines from the American Heart Association and the American College of Sports Medicine recommend weight lifting and vigorous aerobic exercise while also being more specific on how many days a week people should work out.

The advice comes amid rising health problems stemming from sedentary lifestyles and obesity.

The new guidelines call for healthy adults to engage in moderate-intensity aerobic physical activity for at least 30 minutes five days each week, or vigorous-intensity aerobic

exercise for at least 20 minutes three days a week. The guidelines also state that exercise above the recommended minimum amounts provides even greater health benefits.

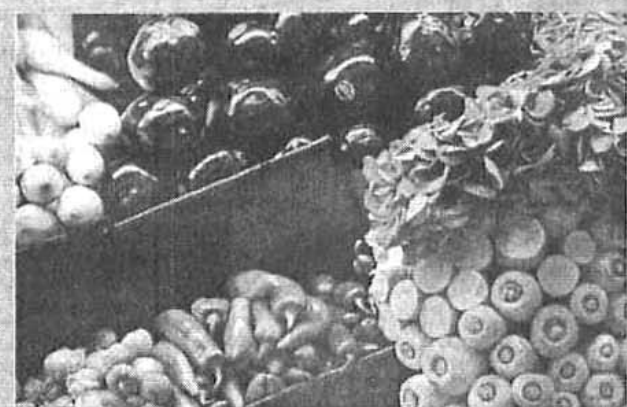
Moderate-intensity aerobic activity can be a brisk walk, light jogging or other exercise that noticeably accelerates the heart rate. Vigorous-intensity exercise like jogging causes rapid breathing and a substantial increase in heart rate.

The guidelines called for weightlifting exercise to work on muscular strength and endurance, with eight to 10 different exercises on two nonconsecutive days a week.

The new guidelines offered specific advice for people 65 and older, urging them to consider lifting weights, improving their strength to prevent falls, and working on flexibility exercises and balance training.

Ailments linked to physical inactivity include cardiovascular disease, stroke, high blood pressure, diabetes, osteoporosis, obesity, colon cancer and breast cancer.

Nutrition Corner



Low-fat diet may cut ovarian cancer risk

A low-fat diet may protect women from ovarian cancer, US researchers said.

Researchers tracked about 49,000 post-menopausal women for about eight years. About 40 percent of them were asked to cut nearly in half the amount of fat in their diet. The others were asked to eat their usual diet.

No difference was seen in ovarian cancer risk in the first four years of the study. But in the final four years, the women who ate a diet lower in fat were 40 percent less likely to develop this cancer than the other women, the study found.

The research was the latest to investigate whether there is a link between diet and disease. Previous studies have implicated dietary factors in some other types of cancer.

Ovarian cancer is not often diagnosed in its early stages when it is most treat-

able, and its causes have remained unclear.

A personal history of breast cancer or a family history of breast or ovarian cancer appear to raise risk for the disease. Previous research had found a higher rate of death from ovarian cancer in overweight women, with the risk 50 percent higher in the heaviest women.

But a possible link with a high-fat diet had remained controversial.

Symptoms of ovarian cancer are vague and often are attributed to other illnesses. The tumor commonly has spread beyond the ovaries once the disease is diagnosed.

Women who had the largest fat intake before entering the study experienced the largest reduction in risk, the researchers said.

Source: Journal of the National Cancer Institute



Depression more damaging than some chronic illnesses

Depression is more damaging to everyday health than chronic diseases such as angina, arthritis, asthma and diabetes, researchers said.

And if people are ill with other conditions, depression makes them worse, the researchers found.

"We report the largest population-based worldwide study to our knowledge that explores the effect of depression in comparison with four other chronic diseases on health state," the researchers wrote in the Lancet medical journal.

Somnath Chatterji of the World Health Organisation, who led the study, said researchers calculated the impact of different conditions by asking people questions about their capacities to function in everyday situations — such as moving around, seeing things at a distance and remembering information.

The researchers assigned a number between 0 and 100 reflecting a person's relative health score.

"Our main findings show that depression impairs health state to

a substantially greater degree than the other diseases," the researchers wrote.

The team used World Health Organisation data collected from 60 countries and more than 240,000 people to show on average between 9 percent and 23 percent had depression in addition to one or more of four other chronic diseases — asthma, angina, arthritis and diabetes.

The most disabling combination was diabetes and depression, the researchers said.

The findings show the need to provide better treatment for depression because it has such a big impact on people with chronic illnesses, Chatterji said.

"What tends to happen is a health provider doesn't look for anything else but the chronic illness," he said.

"What we are saying is, these people will also be depressed and if you don't manage the depression you can't improve a person's health because depression is actually worsening it."

Source: The Lancet

More benefit in the treatment of diabetes from modern insulin

PROF DR ZAFAR A LATIF

Modern insulins (also called insulin analogues) are genetically engineered, modified insulins that have changed treatment by insulin and improved blood glucose control in diabetes patients.

The development of modern insulin represents a significant advance in the management of diabetes. The treatment regimens can now be tailored to meet an individual's need. They reduce the incidence of hypoglycaemia (low concentration of glucose in the blood), are easily administered by almost painless injections with a convenient device.

Modern insulin provide advantages of treatment for both insulin-naïve patients and those patients currently being managed unsuccessfully with older, traditional insulins as well as significant health economic benefits.

Blood sugar after food intake remains high in most people using conventional human insulin. Because conventional human insulin is absorbed into the blood slowly after injection in subcutaneous tissue.

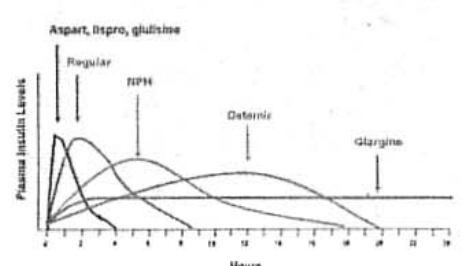
To bypass this slow absorption rate and avoid raised blood glucose after food intake, regular human insulin is recommended to be injected 30 minutes before a meal. Many diabetic patients do not consider the importance of timing in administering their insulin injections. Instead, they elect to inject insulin at more convenient but inappropriate times.

Inappropriate timing of insulin administration results in a mismatching of carbohydrate absorption after food and post-injection insulin peak. Regular human insulin is still present in the blood when insulin is not needed. This often does not fit with patient's lifestyle and the mismatch also predisposes patients to the development of

acute complications of diabetes such as hypoglycaemia (blood glucose level below the lower limit of the normal range). It also places patients at risk for long-term complications in kidney, eye, cardiovascular and nervous system.

On the other hand, modern insulin is absorbed at once into the body and start works very rapidly. So after injection, patients need not wait for 30 minutes to take food.

NovoMix 30 and NovoRapid are two modern insulins that have launched by Novo



Plasma level of different insulins after administration into subcutaneous tissue over time. The figure shows the safety of insulin aspart in comparison to other insulins

Nordisk very recently in Bangladesh from which diabetic patients will get this benefit.

NovoRapid is a rapid acting modern insulin and its generic name is insulin aspart. It is absorbed rapidly after subcutaneous injection as it breaks down very rapidly in absorbable form.

Clinical studies have shown that NovoRapid has twice as rapid onset of action and reaches a higher peak than soluble human insulin in a shorter span of time. Therefore it provides better blood glucose

control after food intake with low risk of hypoglycemia.

The action of insulin aspart lasts for only 3-5 hours unlike soluble human insulin whose action lasts up to 8 hours after the injection into the subcutaneous tissue.

NovoMix 30 is the combination of insulin aspart and longer acting insulin aspart in 30:70 ratio. To fulfill the need for better premixed insulins and considering the fact that premixed insulins are the most widely used insulins, especially in management of type 2 diabetes, premix insulin aspart was developed. In the premix formulations rapid acting insulin aspart care the raised blood glucose after food whereas the longer acting insulin aspart component provides basal coverage. Thus this premix analogue provides not only effective control of postprandial hyperglycemia (raised blood glucose above the normal limit) but also fasting hyperglycemia. The efficacy and safety of this premixed modern insulin NovoMix 30 has been widely studied in various populations.

Modern insulins have made possible the near-physiological replacement of insulin need after food intake as well as basal need. The proper use of modern insulins allows people with diabetes greater flexibility in the timing of meals, snacks, and exercise, which in turn enhances their ability to lead normal lives.

Their availability will help treatment strategies to be tailored to the needs of individual patients thereby helping them to achieve the best possible blood glucose control. Modern insulins will also provide physicians with the appropriate tools to overcome the obstacles to improve blood glucose control and subsequently improve diabetes outcomes.

The writer is a Professor of Endocrinology & Diabetology of BIRDEM.

Health News

Taxotere won the approval for head and neck cancer

U.S. Food and Drug Administration (FDA) has approved Taxotere (Docetaxel) injection concentrate in combination with Cisplatin and 5-Fluorouracil (TPF regimen) for induction therapy of locally advanced squamous cell carcinoma of head and neck before patients undergo surgery and chemo-radiotherapy, says a recent press release.

The FDA based its approval on the results of the phase III randomised, open-label, interna-

tional trial, TAX324, which established the efficacy and safety of the Taxotere-based regimen in significantly improving survival.

"Head and neck cancer is particularly hard to treat and if not detected early has now survival rates," commented Nancy Leopold, survivor, President and Founder of Support for People with Oral and Head and Neck Cancer.

Taxotere is a drug of Sanofi Aventis Ltd.

Microsoft acquires health-IT software

STAR HEALTH REPORT

Microsoft has acquired "health intelligence" software that pulls patient data from various sources into one location and allows instant access to health records.

The software, called Azyxii, which rhymes with "Trixie," was first deployed a decade ago in the emergency department of Washington Hospital Center, the largest private hospital in Washington, D.C.

As part of the deal to acquire the intellectual property for the software, Microsoft also will work

with MedStar Health, which operates the hospital, to further develop and expand Azyxii, company and hospital officials said.

Software creators Craig Feied, Mark Smith, and Fidrik Iskandar, all medical doctors, and about 40 employees from the Washington Hospital Center development team will join Microsoft and work on Azyxii, it was announced during a press conference at the hospital.

Smith will stay as chairman of the hospital's emergency medicine department and also will be chief clinical liaison to Microsoft.

Peter Neupert, vice president of Microsoft's health solutions group, will head a new company division that includes the employees involved in the acquisition. That division will manage product development and commercialization with the goal of releasing Azyxii in the U.S. and eventually globally.

Washington Hospital Center will be the "development lab" for ongoing Azyxii work, developing product prototypes and trying out new features of the software.

Azyxii was designed to allow

data sharing across disparate software systems and currently manages more than 40T bytes of live data that can be immediately accessed, according to its development team. It was built on Microsoft's .Net Framework, with the company's SQL Server database. It can be used on a variety of devices, including tablet and pocket PCs and scales relative to the size of the health-care institution. The software was described as being easy to install, with a user friendly interface and "almost zero downtime."

Dairy lovers show lower metabolic syndrome risk

Men who regularly consume milk, cheese and yogurt may be less likely to develop a cluster of risk factors for diabetes and heart disease, a study suggests.

Researchers found that among nearly 2,400 middle-aged British men, those who drank at least a pint of milk per day were 62 percent less likely than men who rarely drank milk to have metabolic syndrome.

Metabolic syndrome refers to a group of risk factors for heart disease and type 2 diabetes. The components include high blood pressure, elevated blood sugar levels, abdominal obesity, high blood levels of triglycerides (a type of fat) and low blood levels of "good" cholesterol.

The new findings point to an association between dairy foods and the odds of having metabolic syndrome, but do not confirm that consumption of these foods prevent the syndrome.

However, other research

has tied regular milk drinking to lower blood pressure, which may help explain its connection to metabolic syndrome, lead study author Dr. Peter C. Elwood told Reuters Health.

Some other evidence, he added, links dairy foods to better weight control.

Another larger clinical trial found that dairy foods significantly protected against the development of the metabolic syndrome.

All of this suggests that at the least, dairy products "fit well" into a healthy diet, Elwood and his colleagues at Cardiff University in the UK report in the Journal of Epidemiology and Community Health.

Milk products may raise cholesterol, Elwood noted, but he added that the public has become "hung up" on this fact. Milk is a "complex food," he said, and may have a wide range of effects in the body.

Source: Journal of Epidemiology and Community Health, August 2007