

## We need to be ready for flu pandemic

AKAZAD

WHO (World Health Organisation) has cautioned the world community against an imminent flu pandemic. Few infectious diseases cause such huge toll of morbidity, mortality and economic loss as influenza. In addition, influenza can emerge as pandemic that may not be predicted well ahead. In 1918, Spanish flu caused about 40 million deaths and the diseases spread throughout the globe within 90 days. The ability of the virus to hop from bird to human has caused death of at least 32 people around the South East Asian Region last year. These deaths aroused great concern among scientists and public health officials particularly for the possibility of emergence of an influenza pandemic. The recent briefing of WHO official regarding pandemics has heightened the concern.

As highlighted by the recent Severe Acute Respiratory Syndrome (SARS), international air travel increases global vulnerability to infectious agents particularly those transmit through inhalation. Our ability to combat influenza and its complications depends primarily on vaccination. Annual influenza vaccine production is a well-planned process that takes up to 6 months. Current facilities across the world are not suitable for rapid bulk manufacture of avian influenza virus vaccines in response to a world threat. The situation is particularly worst in the developing and least developed countries like ours.

Influenza, commonly called "flu" is one of the oldest and most common diseases known to man. Before World War-I, influenza was

not considered as a public health threat. However, the great "Spanish flu" pandemic of 1918-1919 changed this perception. In only a few months, influenza was responsible for what was considered the worst plague in history, killing up to 40 million people with half of the world's population infected. The pandemic was of unprecedented virulence and was particularly fatal to young adults.

members of a family who had recently traveled to southern China. An outbreak of highly pathogenic H7N7 which began in the Netherlands in February caused the death of 1 veterinarian two months later and mild illness in 83 other humans. Mild cases of avian influenza virus infection occurred in 1999 and mid-December 2003.

Fowl Plague now known to be

symptoms depending on the species, age, sex and strain of the virus. The strains that cause Highly Pathogenic Avian Influenza may reach even 100 per cent mortality in the bird. Signs may reflect abnormalities in respiratory, enteric, reproductive or nervous systems. The signs most commonly reported are decreased activity and feed consumption, emaciation; increased

birds are found dead without previous symptoms. The main source of transmission are migratory birds but infected bird, in-contact birds, beddings, farm equipment may play important role in the disease transmission.

### What makes Bird flu important

Why bird flu particularly H5N1 causes great concern? The virus has shown the capability to hop from avian host to human host and cases were lethal in majority of instant. But the main concern is the nature of influenza virus that mutates highly. There are two processes of mutation of flu viruses one is termed as antigenic drift and another is called antigenic shift. The first one is a comparatively slow process and like other viruses some changes in genetic material take place during its replication in the cell. But other viruses have mechanisms to repair the changes that are absent in flu virus and eventually it leads to surfacing of new strain. But the most alarming is the second process of change. If there is a simultaneous infection of a cell by a human flu virus and other flu virus then they can exchange genetic material. If avian flu virus becomes successful in providing some of its genetic material to human flu then a new virus may emerge having a capacity to transmit from human to human and the situation is the initial fulfillment for onset of flu pandemic.

### Symptoms of bird flu

Published documents about the clinical course of human infection by avian influenza are limited. However, patients develop symptom of fever, sore throat,

cough and in several of the fatal cases severe respiratory distress secondary to viral pneumonia. Antiviral drugs some of which can be used for both prevention and treatment are clinically effective against influenza A virus in otherwise healthy adult and children but have some limitations like high cost and limited supply. Vaccines for human influenza are also available but production for vaccine of a new strain needs at least 4 months.

### Bangladesh situation

Though Bangladesh has not ever experienced any avian influenza epidemic but it would be very difficult to remain non-infected if a pandemic starts. Since, managing influenza epidemic will need preparedness in many areas, a national committee comprising experts including avian and human virologists are necessary. This panel of experts can advise the government on the issue. However, surveillance of influenza virus both in humans and animals should be given top most priority. National Research Institutes and Universities' capabilities regarding sophisticated biotechnological research can be audited for exploring the possibilities of using reverse genetics system to evolve a vaccine among others. But care should be given to adequate bio-security measures to avoid any accidental infection or outbreak. Government should explore foreign assistance for pandemic preparedness. Regional cooperation and joint lobbying of least developed or regional countries can be proved fruitful in this regard.

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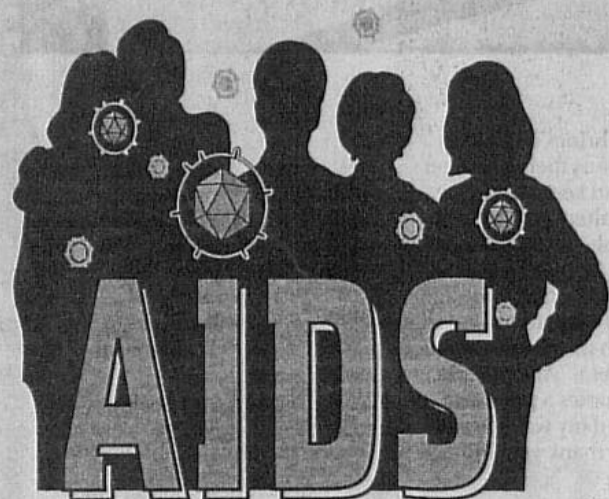


Avian Influenza viruses do not normally infect species other than birds and pigs. The first documented infection of humans with an 'avian' influenza virus occurred in Hong Kong in 1997, when the H5N1 strain caused severe respiratory disease in 18 humans, of whom 6 died. In 2003, an outbreak in Hong Kong caused 2 cases and 1 death in

caused by highly pathogenic strains of avian influenza viruses was described by Perronito as a serious disease of chickens in Italy in 1878 and caused by filterable agents (virus) by Centanni and Savonuzzi in 1901. However, it was not until 1955 that it was demonstrated fowl plague was actually type A influenza viruses. The disease produces variable

broodiness in hens, decreased egg production, mild to severe respiratory signs including coughing, sneezing, rales and extensive lacrimation; huddling; ruffled feather; edema (accumulation of fluid) of the head and face; cyanosis of un-feathered skins, nervous disorder and diarrhea. However, in some cases the disease is rapidly fulminating and

## No cure, only prevention!



TAREQ SALAHUDDIN

Death is the sole destination of AIDS yet. It has no medication to cure completely. So prevention is the only way to survive against AIDS. Followings are some ways to prevent AIDS.

- Modification of sexual behavior: Avoidance of indiscriminate sex. Abiding by the religious values can play an important role in this field.
- Using condoms during sex.
- Regular venereal screening for high risk groups.
- Avoidance of shared razors.
- Avoidance of sharing needles and syringes of intravenous drug use.
- Women suffering from AIDS or who are at high risk of infection should avoid becoming pregnant through the use of contraceptives.
- Prevention of blood borne HIV transmission by --
- Excluding the high risk donors from donating blood, body organs and other tissues of the body.
- All blood should be screened for HIV-1 and HIV-2

before transfusion.

- Strict sterilisation practice should be ensured in hospitals and clinics.
- Disposable syringes and needles should be used everywhere.

Above mentioned points are the protective measurements. But another important measure should we take immediately in order to prevent from the existing PLWHA (people living with HIV/AIDS) in the country. We should try to overcome the social stigma and change our behaviour towards the AIDS patients. Otherwise people will not be encouraged to be screened and will not go for treatment. In addition they will infect many other people.

The present condition of our country is not favorable even to the doctors who want to give treatment to the AIDS patients. They are afraid of the attitude and motive of the common people. To improve the condition we must improve the environment and make it favorable for the treatment of AIDS patients.

## Depression and your child

STAR HEALTH DESK

Depression is not just bad moods and occasional melancholy. It is not just feeling down or sad, either. These feelings are normal in children, especially during adolescence. Even when major disappointments and setbacks make people feel sad and angry, the negative feelings usually lessen with time. But when a depressive state, or mood, lingers for a long time - weeks, months, or even longer - and it limits a child's ability to function normally, it can be diagnosed as depression.

Two types of depression, major depression and dysthymia, can affect children. Major depression is characterised by a persistent sad mood and the inability to feel pleasure or happiness. A child with major depression feels depressed for most of the day, almost every day.

If the sadness is not as severe but continues for a year or longer, the condition may be dysthymia.

Bipolar disorder is another type of mood disturbance and is characterised by episodes of low-energy depression (sadness and hopelessness) and high-energy mania (irritability and explosive temper).

Your daughter spends more time in her room than usual, with the door closed and the shades drawn. She sleeps a lot, and rarely someone can make her smile. She has stopped hanging out with her friends, and when you ask what is going on, she just mumbles.

Is it certainly not the normal teen behavior. There is more here than meets the eye, something that is telling you things are not right.

It is possible that your child is depressed. Depression is a common mental health disorder. In adolescents, the number of depressed is higher. If you suspect that your child is depressed, you will want to learn more about what depression is, what causes it, and what you can do if your child is depressed.

### What causes depression?

Depression usually is not caused by one event or thing; it is the result of one or more factors, and its causes vary from child to child. Depression can run in families, so a child who has a close relative with depression may be more likely to experience it herself.

Significant life events such as the death of a loved one, a divorce, a move to a new area, and even a breakup with a girlfriend or boyfriend can bring on symptoms of depression. Stress also can be a factor, and because the adolescent years can be a time of emotional and social turmoil, things that are difficult for anyone to handle can be devastating to a teen.

Also, chronic illness can lead to depression, as can the side effects of certain medicines or infections.

### Diagnosing depression

Depressed children have described themselves as feeling hopeless about everything or feeling that nothing is worth the effort. They honestly believe that they are "no good" and that they are helpless to do anything about it.

But for an accurate diagnosis of major depression to be made, a more detailed clinical evaluation must be done. A medical or mental health professional (such as a psychologist or psychiatrist) must be sure that your child has had five or more of the following symptoms for more than 2 weeks:

- a feeling of being down in the dumps or really sad for no reason
- a lack of energy, feeling unable to do the simplest task
- an inability to enjoy the things that used to



bring pleasure

- a lack of desire to be with friends or family members
- feelings of irritability, anger, or anxiety
- an inability to concentrate
- a marked weight gain or loss (or failure to gain weight as expected), and little or too much interest in eating
- a significant change in sleep habits, such as trouble falling asleep or getting up
- feelings of guilt or worthlessness
- aches and pains even though nothing is physically wrong
- a lack of caring about what happens in the future
- frequent thoughts about death or suicide

A child who has dysthymia must experience two or more of the following symptoms almost all the time for at least 1 year:

- feelings of hopelessness
- low self-esteem
- sleeping too much or being unable to sleep
- extreme fatigue
- difficulty concentrating
- lack of appetite or overeating

Depressed children and teens are more likely to use cigarettes, sometimes even alcohol and drugs than those who are not depressed. Because these substances can momentarily allow a child to forget about her depression, they seem like perfect "fixes." But they don't fix anything; in fact, they can make the depressed child feel even worse.

### Recognising depression in your child

If you have discovered that more than a few of the symptoms of major depression or dysthymia apply to your child, you may have reason for concern.

Don't dismiss your concerns or think that the symptoms will go away by themselves - they probably will not, and they may get worse. And don't think that you are responsible for your child's depression.

Let your child know that you are there for her, whenever she needs you and wherever you may be. Remind your child of this over and over again - she may need to hear it a lot because she feels unworthy of love and attention. If your child shuts you out, don't walk away - remain there for her. Once your child begins to talk, let her talk about whatever she wants to talk about and don't criticise. The important thing is that she is talking and communicating her feelings. This will help your child begin to realise that her feelings and thoughts really do matter, that you truly care about her, and that you never stopped caring even when she became depressed.

### If you suspect a problem

Depression can be successfully treated in more than 80 per cent of the people who have it. But if it goes untreated, depression can be deadly. Depression is the number-one cause of suicide.

Depression is commonly treated with a combination of therapy and medicine. A psychiatrist can prescribe medicine, and although it may take a few tries to find the right one for your child, most children who follow the regimen eventually begin to feel better. Therapy focuses on the causes of the depression and works to help change negative thoughts and find ways to allow your child to feel better. Feeling is healing, and talking about feelings can be a powerful antidote for depression. A good therapist will communicate this to your child.

With proper treatment and your help, your child can lead a normal, happy, and fulfilling life.

### DID YOU KNOW?

## Water can spread the following diseases!

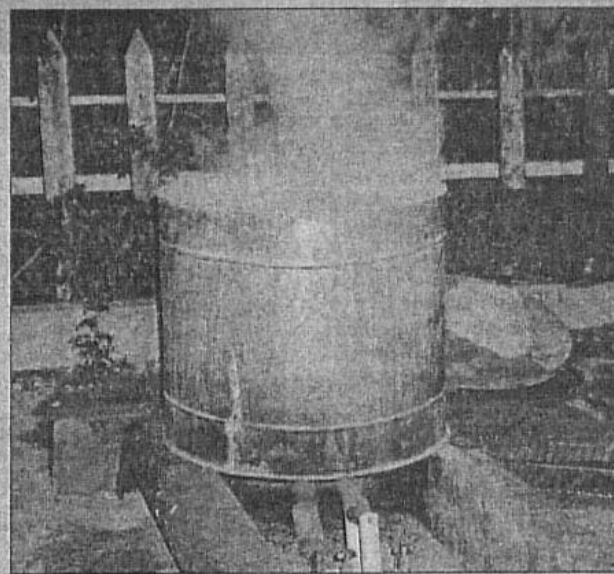
Water can carry the following diseases --

- Hepatitis A
- Hepatitis E
- Poliomyelitis
- Rotavirus diarrhoea in infants
- Typhoid fever
- Paratyphoid fever
- Bacillary dysentery
- E. coli diarrhoea
- Cholera
- Amoebiasis
- Giardiasis
- Roundworm
- Threadworm
- Guinea worm
- Fish tape worm
- Hydatid disease
- Weil's disease
- Schistosomiasis (due to the presence of snail)

- Arsenic poisoning (due to presence of Arsenic)
- Goitre (due to Iodine deficiency)
- Dental caries (due to deficiency of Fluorine)
- Dental fluorosis (due to excess of Fluorine)
- Constipation (due to the presence of Lead, Zinc and Iron)
- Diarrhoea (due to the presence of Magnesium and Aluminium)

### Prevention

The only way to protect these diseases is to use pure water. Boil water in order to purify it. In suspected case test for chemicals present in the water e.g. Arsenicosis.



Purification of water is the only solution to get rid of the diseases that spread through water

### HEALTH TIPS

## Exercise during pregnancy keeps cholesterol down

Women who stay active early in pregnancy may have lower cholesterol than those who take it easy, new research suggests.

Investigators found that among 925 pregnant women evaluated at the end of the first trimester, levels of total cholesterol and blood fats called triglycerides declined as exercise levels increased.

It is normal for a woman's cholesterol and triglycerides to go up during pregnancy, lead study author Carole L. Butler expressed, but particularly large increases have been linked to the pregnancy complications gestational diabetes and preeclampsia -- a potential dangerous condition marked by high blood pressure, fluid retention and protein in the urine.

Some studies have found evidence that exercise lowers a woman's risk of both of these complications. The new findings suggest that effects on cholesterol could be one reason, said Butler, a researcher at the University of Washington in Seattle.

She and her colleagues reported the findings in the American Journal of Epidemiology.

The study included women who were interviewed around their 13th week of pregnancy about their exercise habits over the previous week, as well as other lifestyle and health factors. The researchers found that women who spent the most time being active -- about 13 or more hours a week -- had the lowest total cholesterol and triglyceride levels, while sedentary women had the highest. More moderate exercisers fell somewhere in between.

Similarly, women who reported vigorous activities such as jogging had lower cholesterol and triglycerides than women who engaged in moderate exercise such as "casual" swimming and biking. Again, sedentary women had the highest levels.

However, it seems a woman need not exercise intensely to see the most cholesterol benefits. According to Butler, time spent exercising, whatever the activity, was just as strongly related to cholesterol levels as exercise intensity was.

Source: American Journal of Epidemiology, August 15, 2004.

## New drug for constipation

### Don't Suffer in silence

Eskayef Bangladesh Ltd., one of the leading pharmaceutical companies of Bangladesh, has launched a new drug under the brand name of "Laxitol" in the market -- says a press release. It is a laxative preparation and is very efficient medication for the treatment of constipation.

Constipation is a very common problem in people around us regardless of race, gender, social and other differences. More importantly, the problem aggravates because people feel shy to let others know this problem.

It is equally suitable for children, adult and older people. Laxitol is suitable for diabetic patients, where some other laxatives are not. Besides, it is effective in hepatic encephalopathy, a complication caused by liver disease. It is presented in a protective aluminum sachet, which guarantees quality and ensures convenience in usage.

