

# It's time to save more children from early grave

Bangladesh has applied for Hib vaccine recently. Now it is time to get prepared applying for pneumococcal vaccine to save more lives from pneumonia

DR TAREQ SALAHUDDIN

Pneumonia (inflammation of lung) is the leading killer of Bangladeshi children under the age of five. Major causes for most pneumonia infections are *Streptococcus pneumoniae* and *Haemophilus influenzae type b* (Hib) bacteria. Hib is also the most common cause of bacterial meningitis (an inflammation of the membranes protecting the brain and spinal cord) in countries like ours that lack routine immunisation with Hib vaccine.

Every year more than one lac children die of pneumonia — informed Dr Samir Saha, Professor of Microbiology of Institute of Child Health, Dhaka (widely known as Dhaka Shishu Hospital).

Doctors are fighting against these diseases, but antibacterial resistance is another factor which

makes the battle more difficult. Pediatricians are facing challenges increasingly to treat pneumonia and meningitis since bacteria are getting resistant most of the first line antibiotics. The second line antibiotics are costly and not readily available in the public hospitals of the country. As a result, the treatment is often delayed; many poor patients can not afford those costly antibiotics. Children, who survive, develop disabilities and growth retardation. Often the dilemma leads many more children to an early grave.

A safe and effective vaccine against Hib has existed for over 15 years. Yet, we did not have access to this vaccine. Children were dying needlessly due to the lack of Hib vaccine.

Funding from the GAVI Alliance enables eligible countries to purchase vaccine at a subsidised price through 2015. Poorest countries (e.g., Bangladesh) pay \$0.23/dose. The good news is —

Bangladesh plans to introduce the vaccine into EPI in 2008 and has applied for the vaccine recently.

The existing Hib vaccine is a pentavalent conjugate vaccine. It includes vaccines against Diphtheria-Pertussis (Whooping cough)-Tetanus, currently given as DPT and the Hepatitis B. This way the conjugate Hib vaccine works against five diseases which will save the children from getting multiple shots. Simultaneously it will save the government from spending for those two vaccines.

In spite of all these good aspects, why children who need Hib vaccine the most not receive it? Dr. Rana Hajjeh, Project Director for the Hib Initiative (a team of professionals from Johns Hopkins University Bloomberg School of Public Health, the CDC, London School of Hygiene and Tropical Medicine and WHO,

whose aim is to reduce childhood meningitis and pneumonia through sustained use of Hib vaccine) pointed out the causes as low awareness of pneumonia and meningitis and causes, difficulty measuring diseases, concern about cost and the governments are focused on other priorities.

The provision of vaccine is somewhat that we can not afford not to afford. The additional price for the vaccine should not be the cost of life.

Another vaccine against *S. pneumoniae* is likely to be within our reach by short period of time. Canada, Italy, Norway, Russia, the United Kingdom and the Bill & Melinda Gates Foundation committed US\$1.5 billion to launch the first Advance Market Commitment (AMC) to help speed the development and availability of the new vaccine.

The AMC pilot represents the first step in a historic effort to create a market for life-saving vaccines for children in the world's poorest countries.

The pilot will provide 7 to 10 years of funding to support the development of future vaccines against pneumococcal diseases and will include provisions to assure the long term sustainable supply and price for the poorest countries.

Our government should come forward to inform the global alliance that how dire the need of the pneumococcal vaccine is in Bangladesh and how beneficial its outcome, since we have very rich surveillance data from our country.

The introduction of new vaccines in developing countries has in the past been delayed due to a lack of incentives and adequate planning to address both supply and demand issues before

launching vaccines. But this time, the initiative has been started in time and is going on.

We are lucky that Bangladesh government has focused on this priority. If they are concerned more about introducing pneumococcal vaccine, many more lives would be saved. Since, we are likely to introduce Hib vaccine, we are to get pneumococcal vaccine at more subsidised rate when it is available. There is no reason to miss the train of hope.

Vaccine to prevent pneumonia is part of the solution, and it is available now. We should not make delay for decision and proper action. Time lost means lives lost.

Additional report on pneumococcal vaccine [Ray of hope for the third world to combat pneumonia] is available on <http://thedailystar.net/2007/02/18/02180218011127.htm>

## What you need to know about jaundice



DR MAMASUD

Jaundice is a symptom, not a disease entity by itself. It is the manifestation of different clinical conditions where there is accumulation of serum bilirubin in excess resulting yellow colouration of eyes and skin.

However, non-medical persons by jaundice wants to mean a condition which we term medically as "Acute Viral Hepatitis" (AVH) that results from involvement of different organs of body, primarily the liver, by different viruses.

During summer, there is an increase in prevalence of AVH since different tasty fruits are available in the market. Very often these fruits like mango, pineapple and papaya are served in the open places, even in footpath to the people. Sugarcane is crushed

in the footpath to make juices for sale. These fruits and foods are often contaminated with bacteria and viruses.

There is not good practice of personal hygiene among our people. In hotels, restaurants or in open food serving places, we share same glasses and cups for drinking water and tea, which are readily contaminated. We mostly drink unboiled water.

All of these help getting infected with hepatitis E virus — an agent commonly found in Bangladesh, causing jaundice through water and food.

Hepatitis A virus shares the similar route of transmission as of E. However, it mainly causes a sub clinical (there is no obvious jaundice in spite of infection) disease, mainly in children.

The second most common virus after E is hepatitis B virus.

Transmission mode of this type of viral infection is little different. It enters our body through cut injury, sexual relations, infected blood transfusion and sharing common needles for injection. Everyone should be cautious about sharing same razor, blades and scissors which is often practiced in many saloons.

Hepatitis C virus has the similar mode of transmission. Once it infects, cases get chronic disease and obvious damage of liver.

AVH may not be recognised easily in the early stages of infection which helps in spread from people to people as there is no jaundice, rather, there is a sense of unwell, loss of appetite and fever — all of which are the symptoms of viral fever or other type of febrile diseases.

Affected persons often starts taking paracetamol for fever which should be avoided altogether as it can cause much harm of liver in this clinical condition. Urine becomes yellow after a variable period, usually about one to two weeks followed by yellow colouration of eyes.

These are effective vaccines against these hepatitis except hepatitis C. Vaccine against hepatitis B has been introduced in the routine immunisation programme of our country. So people should get shot against all hepatitis virus.

Little knowledge of all these things described so far, with awareness of personal habits and hygiene can help avoid acute viral hepatitis (Jaundice) in the community.

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## Passive smoking linked with TB risk in children

A study conducted in South Africa suggests there is an association between passive smoking and increased risk of Mycobacterium tuberculosis infection in children living in a home with a tuberculosis patient.

"Tuberculosis and smoking are both significant public health problems," Dr. Saskia den Boon, of KNCV Tuberculosis Foundation, The Hague, Netherlands, and colleagues write in the April issue of Pediatrics.

The possible association between passive smoking and TB infection in children "is a cause of great concern, considering the high prevalence of smoking and tuberculosis in most developing countries."

The team conducted a community survey that included 15 percent of the addresses in two adjacent low- to middle-income suburbs in Cape Town. All children younger than 15 years of age and their adult household members living at the addresses were



included in the study.

All of the children received a tuberculin skin test, with M. tuberculosis infection defined as a reaction of at least 10 mm. The team defined passive smoking as living in a home with at least one adult who smoked for at least 1 year.

A total of 1344 children were included in the analysis. Of these, 432 (32 percent) had a positive tuberculin skin test and 1170 (87 percent) were classified as passive smokers.

The rate of positive tuberculin skin tests was 34 percent in children with a smoker in the home compared with 21 percent in those who were not passive smokers. The difference was not statistically significant.

However, there was a significant association between passive smoking and a positive tuberculin skin test in the 172 households that had with a patient with tuberculosis. Children living in these conditions were nearly five-times as likely to test positive.

"Passive smoking might affect the immune system of the child, thus increasing the risk of getting infected," den Boon and colleagues suggest. Tobacco smoke exposure alters cell function, such as lowering the rate of clearance of inhaled substances and abnormal permeability of cells and blood vessels.

Source: Pediatrics

## Mental exercise improves stroke outcomes

A traditional rehabilitation programme that incorporates mental practice of tasks during therapy significantly improves outcomes in patients with chronic stroke, according to a report in the journal Stroke.

"Mental practice, sometimes called 'motor imagery,' is a technique by which physical skills can be cognitively rehearsed in a safe, repetitive manner," Dr. Stephen J. Page and colleagues from the University of Cincinnati Academic Medical Center, Ohio, write.

"Mental practice increases motor-skill learning and performance in rehabilitative settings, and the same neural and muscular structures are activated when movements are mentally practiced as during physical practice

of the same skills."

In the new study, the researchers compared the effectiveness of a rehabilitation programme incorporating mental practice of specific arm movements to traditional rehabilitation.

A total of 32 chronic stroke patients with moderate movement problems received 30-minute therapy sessions twice a week for 6 weeks. The sessions emphasised activities of daily living.

In addition to traditional rehabilitation, patients who were assigned to the experimental condition also received 30-minute mental practice sessions directly after therapy that required daily mental practice of the activities of daily living. Patients assigned to the comparison group received

traditional rehabilitation, followed by a fake intervention consisting of a relaxation program.

The mental practice group showed significant improvements in arm movement. Subjects receiving mental practice also had significant increases in daily arm function. Moreover, the ability to perform valued activities was only observed in subjects in the group receiving mental practice.

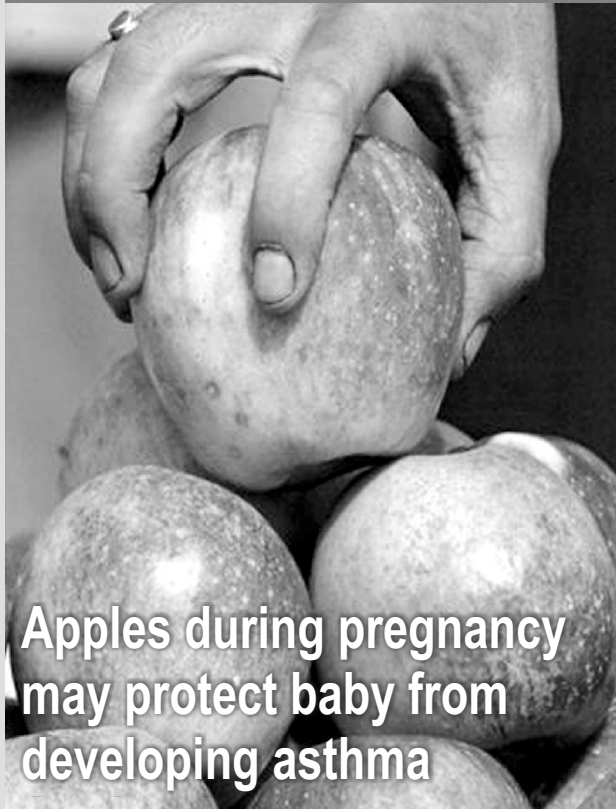
"The results support the efficacy of programmes incorporating mental practice for rehabilitating affected arm motor function in patients with chronic stroke," the authors conclude.

Source: Stroke



A large number of cases in our country get infected by drinking unhygienic drinks. Most of us think that clear, testy water and juice is hygienic. It is best to avoid roadside drinks.

### Asthma Care



Apples during pregnancy may protect baby from developing asthma

A new study suggests that women who eat apples while pregnant may protect their child from developing asthma and related symptoms.

In the study, researchers from The Netherlands and Scotland led by S. M. Willers of Utrecht University tracked the diets of nearly 2,000 pregnant women and checked the lung health of 1,253 of their children.

At age 5 years, 162 children (12.9 percent) had a bout of wheezing in the past year and 145 (11.6 percent) had doctor-confirmed asthma.

Among a wide variety of foods eaten and recorded by the pregnant women, only apple consumption showed a consistent protective association with the occurrence of childhood wheeze and asthma, according to the team's report published in the medical journal Thorax. This is a novel finding, Willers and colleagues note.

The researchers found that children of moms who munched on more than 4 apples per week were 37 percent less likely to have a

history of wheezing and 53 percent less likely to have doctor-confirmed asthma, compared to moms who ate one or no apples per week while pregnant.

The specific association found with apples, and not with the total amount of fruits eaten or with citrus, fruit juice or vegetable consumption, hints at an apple-specific effect, the researchers say, possible because of its phytochemical content, such as flavonoids, which have been shown to have beneficial effects on adult lung function.

The study also found that eating fish during pregnancy may curb the risk of the allergic skin condition eczema in offspring. Children of mothers who ate fish once per week or more while pregnant had a 43 percent lower risk of eczema compared to children whose mothers avoided fish altogether.

Source: Thorax

## Overweight people more likely to get asthma

Obese and overweight people are 50 percent more likely to get asthma than those of normal weight, suggesting that weight loss could help reduce the number of asthma cases, U.S. researchers said.

Asthma, an inflammatory disease usually triggered by an allergy, can cause wheezing, coughing and labored breathing that can be life-threatening.

"Overweight and obesity significantly increases the risk of developing asthma," said Dr. E. Rand Sutherland of the National Jewish Medical and Research Center in Denver, Colorado, who wrote the study.

"If you can substantially reduce the amount of overweight or obese people, you might also get a reduction in the number of new cases of asthma," Sutherland said.

Sutherland and colleagues, said a significant reduction in the incidence of overweight or obese people could cut the number of new

asthma cases.

In children, where the incidence of asthma is five times higher than in adults, the researchers suggested that even small weight reductions could have a big impact in reducing the number of new asthma diagnoses.

Sutherland said the study gives another reason to develop effective treatments for excess weight, which can cause diabetes, high blood pressure and certain cancers.

The researchers said that obesity has been known to cause impairments in lung function, even among people who do not have asthma. As a result, some of the overweight and obese patients who said they had asthma may instead have been suffering from reduced lung volume and chest wall restriction associated with their weight, Sutherland said.

Source: American Journal of Respiratory and Critical Care Medicine

## Bangladeshi ophthalmologist receives international award



Dr M A Muhit

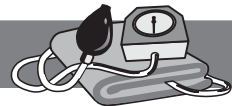
Dr M A Muhit, a young Bangladeshi ophthalmologist, has been awarded the 'Distinguished Service Award' for his pioneer work on prevention of blindness, says a press release.

Asia Pacific Academy of Ophthalmology recognised his leadership role in the development of research, programmes and policies for prevention of blindness in children, both in Bangladesh and International level to

ensure the rights of the blind children.

Dr Muhit is the lead researcher who has conducted the first national study on childhood blindness in Bangladesh. The results of his study identified that over 40,000 children are blind in Bangladesh and over two-third of them are blind from potentially preventable and treatable causes.

Dr Muhit is the founder president of Child Sight Foundation and also the Medical Advisor to a UK based charity organisation, Muslim Aid which works internationally to prevent blindness in children. Currently he is working as a clinical research fellow at the University of London's International Centre for Eye Health.



### Your Doctor



Dr Md Farid Uddin

Associate Professor, Endocrine Medicine  
Bangabandhu Sheikh Mujib Medical University

Dear Doctor,

I am 50 years old. I have diabetes and taking drugs regularly. Recently I have noticed swelling in my ankles and legs. Should I be concerned?  
Regards

Nafees Anwar Khan

Comilla

Answer:

Unexplained leg swelling (oedema) should be evaluated by a doctor, whether you have diabetes or not.

Leg swelling can be a side effect of certain diabetes medications like thiazolidinediones, which may increase your body's sensitivity to insulin.

Other causes of leg swelling may not be related to diabetes but require further evaluation including kidney disease, heart failure, abnormalities of the veins or lymphatic system in the leg.

By some examinations, physician can give you a proper guideline. So immediately consult with a physician.

Send health related queries (either in English or Bangla) to Your Doctor, Star Health, The Daily Star, 19, Karwan Bazar, Dhaka 1215 or e-mail your problem to starhealth@thedailystar.net