

Checklists for a healthy Hajj

Two vaccines are mandatory by the government of Saudi Arabia to perform Hajj this year

DR MD RAJIB HOSSAIN

Along with millions of Muslims around the world, many people here in Bangladesh are getting prepared to move to the Kingdom of Saudi Arabia to perform the holy Hajj. Overcrowding in Hajj may lead to accidental injury and spread of infectious diseases like meningitis, flu that spread easily from person to person.

To keep pilgrims safe and healthy, the government of Saudi Arabia recommends vaccination and health check up prior to entering into the country. According to the authority, administration of two vaccines — one for meningitis and another for H1N1 influenza before arrival are mandatorily required to prevent any epidemic outbreak of these notorious diseases.

In addition to vaccine requirements, all pilgrims arriving in Saudi Arabia will be screened for diseases that must be reported under the International Health Regulations, including dengue fever,

meningococcal meningitis, influenza and yellow fever.

These mandatory vaccines are available at free of cost from government facilities. Government medical college hospitals and some other government healthcare settings are providing two vaccines along basic health check ups. People getting vaccines are given a stamped and signed health card that is necessary to carry as a proof of vaccine administration and other medical records.

However, experts advised to make sure that you have taken all the routine vaccines (such as measles-mumps-rubella, polio, tetanus, diphtheria, pertussis) as well. According to them, people heading to Saudi Arabia may consider some additional vaccinations for extra protection like Hepatitis A and Typhoid fever. These are diseases you can get through contaminated food and water.

People with chronic diseases, such as heart, liver or kidney diseases, diabetes

(with or without complications), obesity or any other condition that affects a person's overall health are strongly recommended to consult physicians to take any decision performing Hajj. The Saudi Arabia Ministry of Health recommends that pilgrims should be 12-65 years old and in good health.

You can make a checklist to stay healthy and hearty during Hajj. Take some essential medicine prescribed by a registered doctor, for example, drugs for diarrhoea, gastritis, asthma, cough and cold, fever, nasal decongestants, allergy, motion sickness, antibiotic ointment, adhesive bandages for cuts and scrapes, non-perfumed lotion. Additionally, you must check your regular medication (if any) are with you.

Taking necessary health preparation for the Hajj is essential to perform all the rituals and stages of Hajj. May Allah bless all of you with a successful journey to the holy place.

E-mail: rajib.hossain@thedailystar.net



Hajj pilgrims are getting vaccinated for Meningitis and Influenza at Shaheed Suhrawardy Medical College and Hospital.



Bacillus anthracis infects mostly farm animals and is usually spread to humans through a break in the skin

A to Z of Anthrax

KAZI RAQUIBUL ISLAM

Anthrax: Anthrax is an acute disease caused by bacterium.

Bacillus anthracis: Bacillus anthracis is the organism that causes anthrax. It forms spores and may come to life from being dormant when necessary.

Cutaneous anthrax: Cutaneous or skin anthrax infection shows up a boil like lesion that eventually forms a blackish ulcer.

Discovery: A German scientist Robert Koch first identified the bacterium.

Exposure: Occupational exposure to infected animals or their products (e.g. meat, skin, wool but not milk) is the usual pathway of exposure for humans.

Fatal disease: If proper cure, prevention or treatments are not given then the disease (specially inhalational form) can be fatal.

Gastrointestinal anthrax: Gastrointestinal infection often happens by eating anthrax infected cows meat. Serious gastrointestinal difficulty, vomiting of blood, severe diarrhoea and loss of appetite are the characteristics.

Herbivores: Herbivores (e.g. cow) are often got affected whilst grazing, browsing and eating rough, irritant spiky vegetation.

Inhalational anthrax: A lethal form initially presents flu-like symptoms for several days followed by respiratory difficulty.

Junks: Humans get affected with the junk products (e.g. intestines) of the affected herbivores.

Killing of spores: Bacteria spores may persist after burial but kill by burning of junk.

Lesions: Black, blister like lesions, no pain in the skin anthrax.

Mode of infection: Handling affected animal, eating meat, inhaling smell of the junk products.

Necrotic ulcer: The boil-like skin lesions form after 3 or 4 days of getting affected.

Open cut: An open cut of the skin is a vulnerable route for getting affected.

Prognosis: Anthrax prognosis depends on type of infection and extension of lesion.

Quinolones: Quinolones antibiotics like Ciprofloxacin, Doxycycline, Erythromycin, Vancomycin or Penicillin are the main drug for treatment.

Risk factors: People working in anthrax threatened area, processing of animal skins, furs or wool, and veterinary medicine are at risk.

Symptoms: According to type and place of infection.

Treatment: Available with antibiotic describe above.

Understanding: Understanding is important that it is contagious from animal to animal but not from human to human.

Vaccine: An anthrax vaccine for human is available only in some developed countries like USA but not in Bangladesh.

Weapon: Anthrax has been used as a biological weapon.

X-factor: Screening test for anthrax remains as an x-factor for identifying anthrax.

Yolk agar: Egg yolk agar is a testing media for identifying the bacterium.

Zone of testing: 1. Skin biopsy can detect cutaneous anthrax, 2. Chest X-ray or CT Scan for inhalational anthrax, 3. Endoscopy and stool sample for detection of gastrointestinal anthrax, 4. Lumbar puncture for anthrax meningitis.

The writer is a medical student of Sylhet MAG Osmani Medical College. E-mail: raquib2001@yahoo.com

Current excitement of Biotechnology and Genetic engineering

MD. MIZANUR RAHMAN

Each and every organism performs its function within its optimum limits naturally. The excitement about the modern Biotechnology is that like a miracle! The Biotechnology and Genetic engineering has enabled to enhance the natural capabilities of natural production of organisms by gene manipulation.

Bacteria like *E. Coli* are producing human insulin and other life saving drugs. Yeast cells have been genetically manipulated to produce vaccine against Hepatitis B virus. Now the hybrid cells (hybridomas) are being used for production of monoclonal antibodies (mAb) to prevent life threatening diseases like cancer, heart attack

etc. Interferon is being produced by genetically engineered *E. Coli* cells.

Techniques have been developed to produce rare and medicinally valuable molecules to change hereditary traits of plants and animals, to diagnose diseases, to produce useful chemicals and to clean up and restore the environment. In this way biotechnology has great impact in the fields of health, food and agriculture and environmental protection. In agriculture, invention of genome sequence of jute by our local scientist is really ray of hope and blessing as well for the country by which we would get back our lost glory of golden fiber in coming days.

The tremendous benefits of Biotechnology have been utilised by health care

globally. Biotechnology derived proteins and polypeptides form the new class of potential drugs. Many countries are playing pivotal role in this field including our neighboring country like India. But in Bangladesh does not have any visible actions (basic research) yet.

Recently some pharmaceutical companies in Bangladesh have started manufacturing different Biotech (rDNA) products like Insulin, Interferon, Streptokinase, Urokinase, Filgrastim, Erythropoietin etc. using its intermediate materials (imported) to finished products. There is a hope that the country people will get these life saving products at an affordable price.

The writer works at a pharmaceutical company in Bangladesh.

Mammograms effective from age 40, study says

Amid the controversy over the age at which women should begin having mammograms to screen breast cancer, a study from Sweden supports starting breast cancer screening at age 40.

That conclusion goes against the many issued guidelines that recommend starting screening for mammogram at the age of 50. However, another study published recently in the New England Journal of Medicine suggested that mammograms are not as effective in women over 50 as previously thought.

The announcement of those guidelines sparked an uproar among advocacy groups. Later, the task force said it had communicated the guidelines



poorly and emphasised that women should still be able to choose to have mammograms at age 40 - it just should not be automatic.

Research presented in the journal Cancer compared breast cancer mortality in areas of Sweden where women 40 to 49 had been invited for mammograms against those in which women in this age group had not. Researchers found about a 26 percent reduction in the breast cancer death rate attributable to mammography. The benefit appeared greater for women 45 to 49 than in the 40- to 44-year-old group.

Source: CNN



Tips to prevent spreading PINK EYE

STAR HEALTH DESK

Infective conjunctivitis, commonly known as pink eye, is highly contagious. There is not a surefire way to avoid getting it. However, these tips may help minimise the chance for catching it or spreading it.

- If someone in your household has conjunctivitis, be sure to wash your hands often and thoroughly.
- Avoid sharing washcloths, towels, pillowcases, mascara or eyeliner with someone infected.
- Do not touch or rub the infected eye(s).
- Wash any discharge from eyes twice a day using a fresh cotton ball or paper towel. Remember to discard the cotton ball or paper towel and wash your hands with soap and warm water.
- Wash bed linens, pillowcases and towels that have been used by someone with pink eye in hot water with detergent.
- If you have pink eye, avoid wearing eye makeup. Never share eye makeup to avoid catching it and spreading it.
- Take proper care of your contact lenses to keep them free from infection and never share contacts with others.
- If you have pink eye, wear glasses instead of contact lenses. Throw away disposable lenses and be sure to clean extended wear lenses and all eyewear cases.
- Wash your hands immediately after applying the eye drops or ointment that relieve or treat pink eye.

Knowing for better living

Anthrax is spread by livestock. Anthrax can be spread from livestock to human, not from human to human!

Physical contact with body fluid, bone & other parts of Anthrax infected livestock can cause Anthrax in human.

In human body main symptom of Anthrax is infection on the skin.

Do not slaughter or eat Anthrax infected livestock

Avoid contact with Anthrax infected or dead livestock

Use gloves or polythene cover to touch Anthrax infected or dead livestock

Bury dead livestock deeply in the soil

Ensure vaccination against Anthrax

Consult Doctor if symptoms of Anthrax appear



Microorganism responsible for Anthrax

Anthrax infected skin

Courtesy...