

Health risks posed during flood

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Flood is a major environmental hazard which visits the country every year. Life is very miserable during flood, but the aftereffect is very dangerous which poses the damage of public health at large scale. At the beginning of the rainy season, we need to get prepared to manage the health hazards caused by flood.

Floods can potentially increase the transmission of some communicable diseases which may be water-borne (like typhoid fever, cholera, leptospirosis and hepatitis A) and vector-borne (like malaria, dengue and dengue haemorrhagic fever, yellow fever, and West Nile Fever).

Water-borne diseases

Flooding is associated with an increased risk of infection. Many floods led to major diarrhoeal disease outbreak and cholera epidemic.

The major risk factor for outbreaks associated with flooding is the contamination of drinking-water facilities. There is an increased risk of infection of water-borne diseases contracted through direct contact with polluted waters, such as wound infections, dermatitis, conjunctivitis, and ear, nose and throat infections.

The only epidemic-prone infection which can be transmitted directly from contaminated water is leptospirosis, a zoonotic bacterial disease. Transmission occurs through contact of the skin and mucous membranes with water, damp soil or vegetation (such as sugarcane) or mud contaminated with rodent urine. The occurrence of flooding after heavy rainfall facilitates the spread of the organism due to the proliferation of rodents which

shed large amounts of leptospirae in their urine. It is likely that environmental changes increased the vector (rodent) population which facilitated transmission.

Vector-borne diseases

Standing water caused by heavy rainfall or overflow of rivers can act as breeding sites for mosquitoes, and therefore enhance the potential for exposure of the disaster-affected population and emergency workers to infections such as dengue, malaria.

Flooding may initially flush out mosquito breeding, but it comes back when the waters recede. The lag time is usually around 6-8 weeks before the onset of a malaria epidemic.

Some health risks posed by flooding

These include drowning and injuries or trauma. Tetanus is not common after injury from flooding, and mass tetanus vaccination programmes are not indicated. However, tetanus boosters may be indicated for previously vaccinated people who sustain open wounds or for other injured people depending on their tetanus immunisation history. Passive vaccination with tetanus immune globulin (Hypertet) is useful in treating wounded people who have not been actively vaccinated and those whose wounds are highly contaminated, as well as those with tetanus.

Hypothermia (decrease of temperature) may also be a problem, particularly in children, if trapped in floodwaters for lengthy periods. There may also be an increased risk of respiratory tract infections due to exposure (loss of shelter, exposure to flood waters and rain).

Power cuts related to floods may disrupt water treatment and supply plants thereby increasing

the risk of water-borne diseases as described but may also affect proper functioning of health facilities, including cold chain.

Preventive measures

Communicable disease risks from flooding can be greatly reduced if the following recommendations are followed.

Short-term measures

Chlorination of water: Ensuring uninterrupted provision of safe drinking water is the most important preventive measure to be

liquid sodium hypochlorite, solid calcium hypochlorite and bleaching powder (chloride of lime; a mixture of calcium hydroxide, calcium chloride and calcium hypochlorite).

The amount of chlorine needed depends mainly on the concentration of organic matter in the water and has to be determined for each situation. After 30 minutes, the residual concentration of active chlorine in the water should be between 0.2-0.5 mg/l.

Vaccination against hepatitis



implemented following flooding, in order to reduce the risk of outbreaks of water-borne diseases.

Free chlorine is the most widely and easily used, and the most affordable of the drinking water disinfectants. It is also highly effective against nearly all waterborne pathogens. At doses of a few mg/litre and contact times of about 30 minutes, free chlorine generally inactivates >99.99 per cent of enteric bacteria and viruses.

Insecticides: flooding does not necessarily lead to an immediate major increase in mosquito numbers, and there may still be time to implement preventive measures such as indoor residual spraying in areas where their use is well-known. This will also have an effect on other mosquito-borne diseases.

Early detection: it is important to track weekly case numbers and provide laboratory-based diagnosis (perhaps only for a percentage of fever cases to track the slide/test positivity rate), to pick up the early stages of a malaria epidemic.

Free medical care: with artemisinin-based combination therapy should be provided when a falciparum malaria epidemic is confirmed, and an active search for fever cases may be necessary to reduce mortality in remote areas with reduced access to health care services.

Health education:

Promote good hygienic practice. Ensure safe food preparation techniques. Ensure boiling or chlorination of water. Vital importance of early diagnosis and treatment for malaria (within 24 hours of onset of fever). **Handling corpses:** Burial is preferable to cremation in mass casualties and where identification of victims is not possible. The mass management of human remains is often based on the false belief that they represent an epidemic hazard if not buried or burned immediately. Bodies should not be disposed of unceremoniously in mass graves and this does not constitute a public health or social norms and can waste scarce resources. Families should have the opportunity to conduct culturally appropriate funerals and burials

according to social custom.

Where existing facilities such as graveyards or crematoria are inadequate, alternative locations or facilities should be provided.

The affected community should also have access to materials to meet the needs for culturally acceptable funeral pyres and other funeral rites.

For workers that routinely handle corpses:

Graveyards should be at least 30m from groundwater sources used for drinking water.

The bottom of any grave must be at least 1.5m above the water table with a 0.7m unsaturated zone. Surface water from graveyards must not enter inhabited areas.

Ensure universal precautions for blood and body fluids. Ensure use and correct disposal of gloves (no re-use).

Ensure use of body bags. Ensure hand-washing with soap after handling bodies and before eating.

Ensure disinfection of vehicles and equipment. Bodies do not need to be disinfected before disposal (except in case of cholera).

Vaccinate workers against hepatitis B.

Long term measures

Legislative/administrative issues:

Create Disaster-Preparedness Programmes and Early Warning Systems. Improve surveillance on a local, national, international and global level.

Promote tap-water quality regulation and monitoring. Enforce high standards of hygiene.

Technical issues: Improve water treatment and sanitation. Keep infectious disease control programmes active and efficient.

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Compared to people who had been sleep deprived, those who had not missed a night of sleep showed more activity in a section of the brain called the caudate nucleus. This suggests that navigating the town had become more of an automatic process in the well rested, according to the researchers, because the caudate nucleus is linked to automatic activities, such as body movement and coordination.

The current study adds another piece of evidence that sleep helps the brain reorganise the information it takes in during the day, according to the researchers.

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Source: <http://www.reuters.com>

Trust me! I am a hormone

It could be the criminals' dream drug -- a hormone that makes people trust you. Scientists in Switzerland and the United States have found that exposing people to the hormone Oxytocin makes them more willing to bond with others.

The same people exposed to the hormone but faced with a computer did not show increased willingness to take risks.

Oxytocin specifically affects an individual's willingness to accept social risks arising through interpersonal interactions," they wrote in the science journal Nature.

It is hardly surprising. Oxytocin -- also known as the

"cuddle" hormone -- is released by both men and women at sexual orgasm, and the bloodstream levels have been shown to rise during massage but fall with recollection of a negative emotion.

"We find that intranasal administration of Oxytocin causes a substantial increase in trusting behavior," the scientists wrote. They added a warning:

"Of course, this finding could be misused to induce trusting behaviors that selfish actors subsequently exploit."

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Source: Nature



A good night's sleep may be good for memory

Our bodies may be at rest while we sleep, but new research finds more evidence that our brains are hard at work as we get our zzz's.

Sleep seems to help the brain consolidate memories so that they are readily available during waking hours, scientists reported at a recent meeting of the Organisation for Human Brain Mapping in Toronto.

Dr. Pierre Orban and colleagues at the University of Liege in Belgium compared the brain functioning of well-rested and sleep-deprived people.

In the experiment, 22 volunteers explored a complex computerised town for about half an hour. After familiarising themselves with the town, the participants had to find particular locations within about 30 seconds. During the fast-paced searches, researchers measured participants' brain activity using a type of brain imaging called functional magnetic resonance imaging (fMRI).

That night, 12 participants went home to sleep as usual, but 10 stayed in the lab and were not allowed to sleep. Then, a few days later, after

everyone had several nights of normal sleep, researcher measured brain activity when the volunteers were put to the test again.

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Source: <http://www.reuters.com>

Periodontal bacteria linked to heart disease



People who test positive for bacteria that cause periodontal (referring to the area around the teeth) disease also have increased thickness of the carotid artery, which suggests there is a direct relationship between periodontal infection and atherosclerosis, investigators report.

However, "there is no guarantee that treating periodontal disease would reverse it, because the damage might be preventable but not reversible," Dr. Moise Desvarieux told.

While there have been numerous studies linking periodontal health and the risk of vascular disease, this is the first to directly measure oral bacteria and thickness of the arteries, Dr. Desvarieux explained. Desvarieux, an epidemiologist at Columbia University in New York City, and colleagues obtained up to eight subgingival plaque samples from each of 657 subjects 55 years or older with no history of stroke or heart attack. The samples were analysed for 11 different types of bacteria. Carotid artery thickness was measured using high-resolution ultrasound.

After adjusting the data to factor out conventional risk factors, the researchers found that carotid artery thickness corresponded with bacterial levels. Five specific types of bacteria that cause periodontal disease were detected.

Furthermore, there was no association between artery thickness and bacteria not associated with periodontal disease, the authors report in *Circulation: Journal of the American Heart Association*.

These differences in arterial thickness are "clinically relevant," Desvarieux said. For example, he noted, a difference of 0.03 mm is associated with a 15-mm Hg increase in systolic blood pressure, or twice the risk of heart attack or coronary death.

Because this analysis was a cross-sectional study, it does not prove the periodontal bacteria cause atherosclerosis, Desvarieux added. It's not clear which one comes first, the increased bacterial levels or artery thickening, "so it becomes critical for us to follow up those patients to see if the progression in microbial burden would also follow the progression of atherosclerosis and translate into clinical events."

Source: *Circulation*, February 16, 2005.

The need of patient referral guideline

DR AK KHAN

Mr Rashid visited an ophthalmologist with pain, redness, photophobia, watering and blurred vision, it was a case of *dendritic ulcer*. Patient was solvent. Oral and topical antiviral drugs, along with drugs for the symptomatic relief were given. After three days, the patient was seen again, ulcer condition improved but the symptoms were persistent.

Then he was referred to Dhaka to a senior ophthalmologist. He ordered to stop previous drugs and gave a new prescription, while his juniors were passing some odd comments. The patient was unhappy with such comments. Patient's attendant purchased all new medicine and went home. They were quite surprised to see that all are exactly the same medicines and it costed about taka one thousand. Patient used previous medicines and improved within few days.

It is just an example of a very common picture of referred case inside Dhaka. Some have much more bitter experiences. It becomes a furious situation when patient referred to some doctor and goes to other doctor for consultation.

There is no formulated patient referral system in our country yet. All we have to refer patients, off and on to tertiary institutions and specialists. No tertiary hospital has any guideline or mechanism to give emphasis on a referred case. What is done, some times good job, entirely depends on the doctors attitude and knowledge who receives the patient first, usually a junior one. It is time to discuss the subject for better management of patient and welfare of our people.

Why we refer patients? We refer patients for the following reasons:

1. Proper diagnosis, confirmation of diagnosis or second opinion on diagnosis.
2. Better facilities of investigation.
3. Specific instrumental facilities for treatment.

4. As a whole better treatment and management of patient.
5. Some times for satisfaction of patient.
6. Cases of poor prognosis.
7. Sometimes to avoid particular patients for different reasons.

Feeling of referred patients

With lots of things in mind, patients go to the hospital or doctor to whom referred with a hope of proper and final diagnosis, specific treatment and investigation with possible less expenses and time.

Role of referee doctor

The referee doctor will assess the patient justifying his decision to refer the patient elsewhere and to particular institution or specialist. S/He should write at least the cardinal points on



suffering, disease and treatment given to the patient. S/He should write the name of institution/specialist where referred and when to go and idea about costing, finally advice patient for feedback.

Patient's expectation

As a referred case patient expects from the doctor to whom referred, will take best care to diagnose and management of the disease. He expects to see the doctor as soon as possible and without any hazard and complete the job within shortest possible time with least cost. Hopes for early cure and finally he feels to deserve some special attention as a referred case.

Role of doctor to whom referred

This is the person who is most important in this whole event. One of his colleague referred

patients with some expectation and the very patient comes with great hope and aspiration. Usually patient expects good behavior, clean and specific management. It is always a memorable event for a patient to meet a doctor whether with satisfaction or dissatisfaction. Some time they describe the same story at places whenever they get scope.

"I was half cured when I came out of the doctors chamber" -- is a common comment of a satisfied patient. "When I entered the chamber and looked at the eyes of doctor, my heart stopped beating and the tongue and throat became dry while talking and I could not express my suffering properly and the doctor became more angry with me. It's a horrible experience, I won't suggest any body to take patient

to him" -- is a painful comment but not very uncommon.

We have to keep in our mind that it is honour for a doctor and institution to have referred cases if the referee doctor could have solve the problem, he would not refer the case. So there might be some lacking on his part. Another point is we should never think a patient fool, whether educated or uneducated and even a rural poor. The can understand what right and what is wrong, very often they do protest.

Some key points to be considered

Until a generally acceptable formulated referral system is developed in Bangladesh, tertiary institutions and specialists and sub-specialists can help the referred patient keeping in mind the following points:

1. To see the patient on the same day, because patient is usually coming from far, most are difficult or emergency case, finally to honour the referrer.
2. To arrange allowing patient directly to the department concern, like retina, cornea.
3. After primary assessment by junior doctor, patient be finally seen by a senior consultant or associate professor on the same day.
4. To give some special attention to the patient and see the referral papers.
5. While writing prescription, name of referee doctor should be written as courtesy.
6. Total treatment should be given with some intimation for further continuation of treatment by local doctor.
7. Feedback be given to referee doctor.
8. Doctor visiting patient should sign with date and stamp name with designation.
9. Doctor can praise the referee doctor, if not, at least should not speak ill of him in front of patient.
10. A file be maintained for all OPD patients, if not possible, at least the cases seen by consultants.

Conclusion

We should come forward to develop a generally acceptable referral system. A referral sheet or format can be developed. Institution or specialist having capability of dealing with referred cases should let it know others by social marketing.

It takes much pain for a patient to come a long way from a district to the capital, with a hope of cure of disease, of which people believe half done by behavior of the doctor and half by medicine. Sometimes we fail to realise the feeling of a patient. Let we all come forward to served our hopeless people to give relieve from curse of suffering-Physical and mental.

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How to manage sibling rivalry

While most cases of sibling conflict are normal, it can still be stressful for parents.

Here are some tips on how to deal with the problem:

- Ignore normal competition and bickering among your children. Leave the area and think about something else and let your children work it out.
- Establish limits and rules, such as no hitting and no throwing objects.
- Read books and articles about sibling relationships.

Don't make comparisons in front of your children. For example, don't say things like, "Why aren't you as tidy as your brother?"

If you feel you have to intervene, first tell your children that you know they are angry. Then give each child the opportunity to tell their side. Rephrase what each child said. Tell them that, even though it is a difficult problem, you believe they can resolve it.

