Aedes-infested hospitals treat dengue patients

Public hospital cleanliness gains new meaning amid dengue crisis

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A tide of anxiety swept over the medical community when a survey by the disease control division of the Directorate General of Health Services (DGHS) revealed Aedes larvae infestations in Dhaka Medical College Hospital (DMCH). Given that it is one of the main public health institutions in the city that is currently burdened with thousands of dengue patients, this was a startling find.

Four teams of entomologists analysed samples from 14 sites (including transport hubs and police stations) in the survey, carried out between July 31 and August 4. To get a sense of how infested a place is, or may be, they calculated the number of water containers present at the location that test positive for aedes larvae—this is known as the Breteau index.



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Of the 14 sites inspected, 12 exceeded the threshold level. Bus terminals and rail stations were found to be the most Aedesdense areas. What was more surprising is that some hospitals are just as Aedesinfested as Gabtoli bus terminal and Kamlapur rail station. The Breteau index at Dhaka Medical College Hospital (DMCH) was found to be between 60 and 80, while at Mugda Medical College Hospital the index was 80. The presence of more than 20 positive containers is considered dangerous for those in the vicinity.

Doctors, nurses, patients' attendants and hospital staff are already extremely vulnerable to infection, owing to their close proximity to dengue patients; such a high presence of Aedes larvae on hospital premises further heightens the risk. As per DGHS, 480 doctors and healthcare workers have been infected with dengue this year, as of August 26.

The DMCH grounds are not devoid of litter, with discarded plastic, polythene containers, medicine bottles, and food

packets strewn in, about, and around window ledges, terraces, roofs, and open spaces. The number of cleaners varies from ward to ward—on average, there are around 10 to 15 workers stationed in the medicine units who regularly clean the 80 sanctioned hospital beds inside the ward, as well as the additional beds in the balcony and corridors and the adjacent rooftops.

Conversations with the cleaners unearthed a crucial failing of the system—many of the cleaners working here are not on any official payroll. They sustain their livelihood by running errands for the patients or their attendants, which one cleaner says, earns him between Tk 7,000 to 8,000 a month. This is on top of their daily duties. Md Manik, a DMCH cleaner, says that he cleans the interiors of the wards thrice daily as well as the spaces around them, as per the roster by the ward masters.

Those on the government payroll, however, earn a gross salary of around Tk 15,250 monthly. In the wards *Star Weekend* visited, the unofficial cleaners outnumbered the government ones roughly by 10 to one.

A ward master said that the massive imbalance between the number of fourth-class employees officially recruited by the government and the workload of the hospital means they have to hire extra cleaners outside the official payroll from time to time. The last government recruitment was back in 2009. Despite reassurances from high officials about a new circular, there has been none in the last ten years. Unofficial cleaners interviewed say they are clueless as to why the authorities are inactive in spite of being informed of their plight.

This arbitrary system for hiring cleaners raises the question of whether the unofficial and unpaid cleaners dedicate more time to doing chores for patients and their families for money, or cleaning the hospital wards and grounds. However, hospital staff in different departments vouched for the cleaners in their respective units, saying that they do not neglect their responsibilities. Another cleaner said that their work was compromised because they were not provided any gloves, masks, or other personal protective equipment during their work.

If everyone concerned is working proactively, where is the gap?

In a hospital routinely hosting around 4,000 patients indoors (against a provision of 2,600 beds), it is not surprising that this leads to extensive littering by patients, their families, and visitors.

Nursing Supervisor Samira Chowdhury notes that most patients admitted at DMCH each have around three or four attendants, and the waste created by all these people is a challenge for the staff doing their duties. While posters declaring "Cleanliness is a part of Iman" or "Do not spit here and there" are up on hospital walls and there are dustbins around the area, the message does not seem to reach people. Many perhaps cannot read; some may not care.

Dr Md Nasir Uddin, an assistant director at DMCH, identifies overwork and understaffing as primary challenges in ensuring cleanliness in the hospital. Limited manpower—that too unpaid—can hardly cope with regular cleaning, let alone the extra vigilance due to the dengue outbreak.

"Gross cleanliness of the entire hospital complex is our number one priority now. We're closely working with the city corporation in this regard," Uddin explains when asked about the administration's response to the dengue crisis, adding that the hospital has its own larviciding equipment and is in the process of getting its own fogging machines.

"As we speak, we have 30 of our workers patrolling the campus to inspect potential mosquito breeding sites and eliminate them."

While fogging and anti-mosquito drives in public have risen since the dengue outbreak, many, including experts, have questioned how effective fogging is.

At a special media briefing on dengue organised by DGHS and the health ministry on August 5, a senior entomologist at the World Health Organisation (Southeast Asia) dismissed fogging as a solution. Dr BN Nagpal explained that as Aedes mosquitoes are domesticated and reside inside urban homes, they do not come in contact with the fog sprayed outside. The WHO no longer recommends the method as an effective Aedes mosquito control.

In a speech commemorating ASEAN
Dengue Day, chair of Singapore's dengue
expert advisory panel and founding
director of the Emerging Infectious Diseases
programme at the Duke-NUS Medical
School, Professor Gubler, also opined that
fogging is not very effective. He highlighted
the necessity of paying greater attention
to novel methods such as sterilising
mosquitoes or newer pesticides, which
could be more effective than spraying.

The willingness of the authorities to undertake necessary measures, given the magnitude of the dengue outbreak, is definitely positive, but the question still remains—how effectively have they addressed these constraints?

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