

## Superbug Scare: Do we really need to fear?

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*Recently, there was a furore over a report by the British journal, The Lancet, which claimed that there was a presence of a superbug in New Delhi's water bodies. BioSpectrum tries to find out whether it is just a hoax created to attack the Indian medical tourism, or do we really need to take the situation seriously*

On April 06, 2011, British medical journal, The Lancet published an online article titled 'Dissemination of New Delhi Metallo Beta Lactamase -1' (NDM-1) Positive Bacteria in the New Delhi environment and its implications for human health: an environmental point prevalence.' The article was based on the results of reported testing of the biological samples in the form of swabs of Indian seepage water and tap water in the UK.

The report led to a huge controversy surrounding the presence of the antibiotic resistant superbug. The Indian government was quick to debunk the report. It maintained that the capital's drinking water is safe and questioned the credibility of the study.

According to the official statement by the Ministry of Health and Family Welfare, Government of India, the study is unsupported by any clinical and epidemiological evidence and also does not highlight the unstable character of the isolates. "The environmental presence of NDM-1 gene carrying bacteria is not a significant finding since there is no clinical or epidemiological linkage of this finding in the study area as given in the publication. The fact that patients respond well to medical and post surgical antibiotic treatment indicates that NDM-1 is not a significant problem in the country," stated the statement issued by the Ministry.

However, following the outcry from the public and civil society, the government decided to set up a committee to carry out research into the basics of NDM-1. The WHO will be assisting the Indian government in the research that is expected to

reveal if the superbug is a health threat or not. The director general (DG) of Indian Council for Medical research (ICMR), Dr V M Katoch, however, says that he is not aware about the formation of any special committee on the issue. Speaking to BioSpectrum, he adds, "I am not aware about the formation of any specific committee for probing the NDM-1 superbug. The talks about the antibiotic policy are because of unchecked use of antibiotics and the focus here is not only NDM-1 but the overall microbial resistance issue. At ICMR, we are clear that it does not have any huge social implications and that this is just a hype created to tarnish the image of the country," says Dr Katoch.

There seems to be an overall consensus among the experts about the universal presence of superbugs. The experts say that it is present in the soil, water and even in the gut. The important questions being raised are, if the rise of this superbug is linked to the use of antibiotics called carbapenems, then how can it be possible that the infection is water borne and how can the people of India tackle this kind of antibiotic issue? Expressing surprise over the fears being created in the minds of the people, Dr Katoch, said that the superbug exists everywhere in the world and it is unfair to call India as the hotbed of superbugs.

Dr V S Chauhan, director, International Centre for Genetic Engineering & Biotechnology (ICGEB), New Delhi, chose to slightly differ on the issue. He said, "We need to take this seriously and carefully investigate its implications on public health. It is very important to ensure that it doesn't get into the drinking water system." Meanwhile, the press release by the Health Ministry also pointed out to the study carried out by Sir Ganga Ram Hospital, New Delhi, in the affected area. It shows that E. coli, which is isolated from the gut of a large randomly selected sample of a pregnant women did not show any carbapenem resistant E. coli in the stool samples, thus indicating no presence of NDM-1.

Most of the members of the scientific community agree that the research findings have gone too far in blaming Indian hospitals and prevalent hygienic conditions. One expert went to the extent of calling it an attack on the medical tourism in India.

**Rahul Koul** in New Delhi