

SUPERBUG IN NEW DELHI

Mahatma Gandhi's wry comment that "Sanitation is more important than independence" comes back to haunt us once again. Fifty of 171 seepage samples (water pools in streets and rivulets) and 2 of the 50 tap water samples in New Delhi tested positive for bacteria with the infamous bla NDM-1 mutation while 100 control samples from sewage water in Wales tested negative. Bacteria included enterobacteria and aeromonads and 11 species in which NDM-1 mutation has not previously been described such as *Shigella boydii* and *Vibrio cholerae*. 20 strains of bacteria were found in the samples, 12 of which carried blaNDM-1 on plasmids while isolates of *Aeromonas caviae* and *V cholerae* carried blaNDM-1 on chromosomes. Transfer of the plasmids carrying the NDM-1 gene was highest at 30°C, the average peak temperature, and within the daily temperature range of New Delhi from April to October.

This study published by Walsh, *et al* in The Lancet Infectious Diseases indicates that the mutation is now circulating in bacteria present in the environment and is no longer just hospital derived. The ICMR has invited research proposals from scientists to generate more evidence. An honest appraisal of the problem will be the first step to solve this gargantuan problem. The second important development has been the drafting of the much-needed national policy for containment of antimicrobial resistance. The policy admits that the use of antibiotics is inappropriate in 20 per cent to 50 per cent of cases. It targets the indiscriminate use of antibiotics in food animals and intends to curb the practice since it ultimately causes drug resistance in humans. Most importantly, access to third generation

antibiotics like carbapenems is to be restricted to tertiary hospitals. The paradox is that a nation which writes software for half of the world finds it difficult to develop a national surveillance system for measuring antibiotic resistance. (*The Lancet Infectious Diseases, May 2011;355-62*).

'SMS FOR LIFE' PROJECT

Stock-outs of malaria treatments at the health facility level in many sub-Saharan African countries have been a persistent problem for many years. A stock-out is the unavailability of medicine at the health facility. To solve this problem an innovative solution has been designed by a private-public partnership between Novartis and the Ministry of Health, Tanzania. This unique partnership developed a solution using mobile phones, SMS messages, internet and mapping technology to visualize weekly stock inventory of artemisinin combination therapy (ACTs) and injectable quinine at 129 health facilities and 226 villages. The SMS for Life pilot project was designed so that health workers in Tanzania used their personal cell phone to send a weekly SMS stock-count message into a centralized database. At the start of the pilot, 25% of all health facilities did not have any ACTs in stock, but by the end, 95% had at least one ACT dosage form in stock. In addition, 888,000 people in the three pilot districts had access to all malaria treatments at the close of the pilot, versus 264,000 people at the start, which helped to reduce the number of deaths from malaria. The pilot project was launched in 2009 and its huge success has led to its nation wide deployment which was announced on World Malaria day on 25 April 2011. (*Malar J 2010; 9:298*.)

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