

DRUG-RESISTANT SUPERBUGS ARE SPREADING, AND FAST

Relevant for: Science & Technology | Topic: Biotechnology, Genetics & Health related developments

The University of Melbourne's most recent study on superbugs has alarmed hospitals worldwide, having discovered the newest superbug, *Staphylococcus epidermidis*, the first one so far that is resistant to all known drugs, spreading undetected across the globe. Found in human skin, researchers discovered three variants of the multi-drug resistant bug. This means that fighting both large and small infections has just got much harder.

Adding to the many threats to human health in the world, strains of superbugs which are being discovered tend to mutate in hospitals, especially Intensive Care Units with sick, low-immunity patients and a large number of strong antibiotics in the area. When the bacteria comes in contact with an ill patient, the body is too weak to fight it, causing infections and affecting one sick person at a time. Even the World Health Organisation has long since been warning about different strains of drug-resistant bacteria. For India, this is a serious problem. The country has among the highest rates of unapproved drugs sold, many of which are over-the-counter drugs, and an indiscriminate use of antibiotics, which means that it becomes difficult to assess, control and limit Anti-Microbial Resistance (AMR). Doctors prescribing improper medication won't just weaken the patient's immunity, but also contribute to the rise of superbugs. Many drugs of different formulations, not approved by the national drug regulator, continue to be sold mostly to those who are too poor or too desperate for an alternative. This also includes a large demographic who will take what is prescribed to them without question.

According to a report in this paper in July 2017, India has already begun its efforts through a National Action Plan on AMR, developing ideas on how to combat drug resistance. Even the Indian Council of Medical Research has issued guidelines to standardise antibiotic use, in 2017. But the problem lies in the urgency of this plan to reach the ground. With India's booming population, improper, uncontrolled drug use and the lack of access to authorised medicine, the process might work better to move from a trickle-down system to one that starts from the ground, and moves up. Even Alexander Fleming, who discovered penicillin warned against the indiscriminate use of the antibiotic, because the body will eventually begin to resist it, losing its effect entirely. As people grow resistant to different drugs, we could see an epidemic in the future, unable to cure even minor illnesses due to improper drug use. We can't even say that we haven't been warned.

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