

Irrational use of antimicrobial agents

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ABSTRACT

The irrational use of drugs is a worldwide problem affecting developed and developing countries. The misuse of drug especially antimicrobial agents is widely prevalent which has led to the development of resistant strains resulting in premature obliterations of highly efficacious and life saving antimicrobial agents.

Antibiotics are one of the wonder drugs in the modern world, which enable doctors to save and extend life span of infected people. Imagine a world where pathogens are not affected by the presence of antibiotics and superbugs are causing morbidity and mortality without restrictions. Alarming increase in drug resistant cases of infections is one of the biggest troubles that medical experts are jostling with. There has been a steady rise in the number of resistant microorganisms. The most important reason for this is rampant use of anti-microbial agents. Studies have revealed the existence of compulsive antibiotic prescribing, which was found to be significantly inappropriate & unnecessary. It has been noticed that some physicians try to prescribe high end antibiotics in order to achieve fast possible convalescence of the symptoms. It is a known fact that majority of the infections are caused by self limiting viruses which do not need any anti-microbial administration.

Indiscriminate use of antibiotics has lead to increase in hospital acquired pneumonias in the recent years.

Staphylococcus aureus and Pseudomonas aeruginosa appear to be common causes of hospital-acquired infections in India.^[1] Among the MRSA strains, high resistance was detected to norfloxacin, ciprofloxacin, penicillin, co-trimoxazole, chloramphenicol, and tetracycline. Resistance levels were intermediate for gentamicin, amikacin, and netilicin.^[2]

It is always the responsibility of the prescribing doctor, as to what kind of antibiotic should be used, but fast lifestyle has encouraged the patients also to procure antibiotics without prescription. Some patients also suggest the doctors to use the most effective drug to get rid of the symptoms as soon as possible, without considering rationality of the prescription.

Lack of proper microbiology testing facilities also adds to this mess. When microbiology facilities are not available, doctors may prescribe antibiotics to most patients with a fever, taking it as a sign of bacterial infection.^[3, 4]

The problem does not stop here. Emergence of drug resistant bacteria can lead to permanent elimination of friendly

bacteria which enable us to make vitamins and boost our immunity. Killing these good bacteria with antibiotics can bring about an increase in chronic health conditions like cancers, hypersensitivity reactions, obesity etc.

The irrational use of antimicrobial agents must be controlled to prevent the emergence of resistant strains, decrease the adverse effects and cost of health care services.

Time has come that we should rise to the occasion and promotes rational prescribing of drugs especially anti-microbial agents. If concrete steps are not taken in this direction, then simple infections can stare in our faces like uncontrolled monsters in near future.

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