





## World Congress on APPLIED MICROBIOLOGY World Congress on **ANTIBIOTICS**

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## Role of a Medical Student in Antibiotic Stewardship

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ntimicrobial stewardship is a coordinated program that promotes the appropriate use of antimicrobials, improves patient outcomes, reduces microbial resistance, and decreases the spread of infections caused by multidrugresistant organisms. India is now taking rapid strides to address the growing problem of antibiotic resistance. National Action plan clearly outlines all the challenges that need to be tackled to overcome this phenomenon. Key areas are identified to take action which includes Improved awareness of Antimicrobial resistance through effective communication and strengthening knowledge and evidence through surveillance. Studies carried out over the last decade in both hospital and community settings, indicate that resistance in important pathogens is at high levels. For antibiotics to be used rationally it is necessary that all the health care workers are educated enough to prevent spread of antibiotic resistance. Before educating the private practitioners it is necessary to know about the awareness amongst them regarding antibiotic resistance .The medical student is a key member of the healthcare professional team. For that Students should be adequately and appropriately trained to have a good prescribing skills as they enter into clinical practice. Medical student should get involved in antibiotic stewardship as active member of the medical team. They can help in active surveillance of resistant strains, surveillance of Hospital Infections and audits. Students can help in collecting data regarding awareness of antibiotic resistance amongst clinicians working in Institutes or in the community. Hence this study was planned to conduct a survey, to assess the knowledge

and beliefs on antibiotic resistance amongst the clinicians. 100 clinicians were included in this study which included physicians, pediatricians, surgeons and gynecologists and obstetricians. A structured questionnaire was provided online to the participants. More than 90% of physicians followed by 81% of pediatricians strongly agree that ignorance to antibiogram while prescribing antibiotics is a crucial aspect is promoting antimicrobial resistance. Need of regular Continued Medical Education (CMEs) on proper antimicrobial usage was unanimously agreed upon by all 4 groups. Our study showed that 90% of the pediatricians and physicians agree to poor hand washing and poor infection control practices being the factors responsible for contributing to antimicrobial resistance. Failure to properly diagnose patient's infective conditions for diagnosis of infectious diseases were reasons agreed upon by 60% of surgeons and gynecologists and 90% of physicians and pediatricians. 81% pediatricians and 60% of physicians felt that patient's demand for antibiotics being contributory. However, 90% of all four groups agreed upon patients failing to adhere to treatment and discontinuing prescribed antibiotics midway the treatment being a significant cause. The data generated will help in policy formulation and program development for educating the clinicians regarding appropriate use of antibiotics ,which will be a first step towards antibiotic stewardship program. This study shows that Medical students are the active members of antibiotic stewardship program. This study helped them to become aware about the major problem in our country.

## **Biography**

Rucha Ridhorkar is a third year student pursuing her MBBS at NKPSIMS, Nagpur,India. She has a bright academic record securing honors in six subjects of the medical course, namely (Physiology, Biochemistry, Microbiology, Pathology, Pharmacology, Forensic medicine & toxicology). She has a research-oriented mind and has successfully conducted the NKP STS 2017 research on Antimicrobial Resistance for which she was awarded with a scholarship. Her work on establishing role of a medical student in antibiotic stewardship is a multifactorial approach where the knowledge and beliefs of clinicians about antimicrobial usage are assessed, thus helping in formulation of efficient antimicrobial practices.

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