

*Editorial*

**Antibiotic Abuse in Dentistry**

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Antimicrobials are valuable adjuncts in the management of orofacial infections and antimicrobial resistance is a well-known entity and the most common factor leading to this is the irrational use of antibiotics. The prescription of antibiotics in dentistry is relatively small but nonetheless significant. The use of antibiotics in dental practice is characterised by empirical prescription based on clinical and bacteriological epidemiological factors, resulting in the use of a very narrow range of broad spectrum antibiotics for short periods of time. This has led to the development of antimicrobial resistance (AMR) in a wide range of microbes and to the consequent inefficacy of commonly used antibiotics.

Antibiotics continue to be prescribed by dentists as much or more as in the past, despite the scarcity of clinical trials demonstrating the need for antibiotics. Injudicious prescription of antibiotics by dentist and patients using it on their own has resulted in emerging microbial resistance to various antibiotics & this trend is likely to continue given the widespread use of antibiotics. It is required for the patients that they use antibiotics only when prescribed, take full prescription,

discard leftover, do not share their prescription with friends or family, and prevent infection by maintaining hygiene. With emergence of antibiotic resistant strains, an appropriate and judicious use of antibiotics is the need of the hour. Dentists can make a difference by the judicious use of antimicrobials – prescribing the correct drug, at the standard dosage and appropriate regimen – only when systemic spread of infection is evident.

Dental infections often are treated with broad-spectrum antibiotics, such as amoxicillin, but these prescriptions usually are necessary. Dentists prescribe antibiotics when pain, swelling, associated lymphadenopathy, and other signs of infection are present. Patients must be made aware of the rising antibiotic resistance and should be educated to complete the recommended regimen when prescribed. Also the dental practitioners should be made cautious about irrational antibiotic to reduce the development of cross resistance & needless patient exposure.

There is evidence that inappropriate prescribing of antibiotics by dental practitioners may be contributing to the development of the antibiotic

resistance. As per the National Center for Disease Control and Prevention, approximately one-third of all outpatient antibiotic prescriptions are unnecessary. If so, then the dental profession must take steps to prevent the problem from becoming worse. Comprehensive undergraduate and postgraduate education on the subject is required. The installation of a surveillance system, accompanied by audit to ascertain the number of prescriptions written and their appropriateness, to highlight areas of prescribing knowledge that are lacking in dental practice are recommended. From the dental perspective, it is, therefore, suggested that antibiotics should be used as an adjunct and not a substitute for a definite treatment.

In the absence of signs and symptoms of infections, dental practitioners should refrain from prescribing antibiotics for relieving pain. It is required to analyze the condition before prescribing antibiotics to the patients. Therefore, it is recommended that continuous education programs need to be conducted on antibiotic prescriptions for the dentists to keep themselves update. It is the duty of the dentists to educate the patients the importance of taking the antibiotics in the right manner as prescribed by him and display patient education materials in their clinics and institutions

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