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Antibiotic Prescription Attitude and Antibiotic Resistance Awareness Among European Dentists.

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Objectives Antimicrobial resistance has become an alarming global public health concern, threatening the effective treatment of common infections. This phenomenon has been fostered by the improper prescription of antibiotics by general dentists and specialists. This study aimed to elucidate the patterns of antibiotic prescription mainly during dental implant placement and treatment of peri-implantitis among European dentists and their awareness of antibiotic resistance.

Methods A validated anonymous online questionnaire was distributed via e-mail through the European Association for Osseointegration to dentists based in Europe. The questionnaire comprised of 17 structured questions investigating demographic variables, working environment, experience, attitude towards antibiotic prescription, in particular in relation to implant dentistry and to COVID-19 pandemic, and awareness about antibiotic resistance. Data were collected in April-May 2023.

Results 281 dentists from 33 European countries completed the survey. Amoxicillin, alone or in combination with clavulanic acid, resulted the most common antibiotic for dental implant placement, despite high awareness among respondents of penicillin resistance. Almost 80% affirmed to routinely prescribe antibiotics as prophylaxis as well as after implant placement, especially in medically compromised patients or in cases of bone grafting. For peri-implantitis treatment, more than half use systemic antibiotics. The large majority (95%) did not prescribe more antibiotics since the beginning of COVID-19 pandemic and less than 40% declared to follow national guidelines for antibiotics prescription.

Conclusions This survey revealed a high prescription rate of antibiotics in implant dentistry, despite the awareness about antibiotic resistance among the respondents. The development and adherence to European guidelines have been identified as a potential strategy for improving antimicrobial stewardship.