

Poster 52

Antibiotic prescription in dentistry: Systematic and critical evaluation

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Abstract

Background: Antibiotics have been widely used to treat bacterial infections. In dentistry, their use has been generalized for the treatment of dental infections. This raises major concerns related to their overuse and to the resistance that develops⁽¹⁾. A critical evaluation of their efficacy in comparison with other therapeutic options is therefore necessary. **Objective:** Critically evaluate the effectiveness of the use of systemic antibiotics in the treatment of dental infections, compared to other therapeutic options. Additionally, this review aimed to explore the motivations behind antibiotic prescriptions in dentistry, with a view to promoting the appropriate use of these drugs and improving patient education regarding adherence to prescribed regimens. **Methods:** A search was made in PubMed, Cochrane Library, B-On and Scielo, considering articles published between 2013 and 2023, in English and Portuguese. The study selection strategy followed the PICO framework (Population: patients with dental infections; Intervention: systemic antibiotic therapy; Comparison: other therapeutic options; Outcome: improved antibiotic prescribing practices). The selection and analysis of studies were carried out according to PRISMA recommendations, using the ROBINS-I tool to assess the risk of bias of the included studies. **Results:** Of the 384 records initially identified, 12 studies were selected that met the inclusion criteria. These studies covered different geographical regions all over the world^(1,2). The results showed that there is a global trend towards the inappropriate prescription of antibiotics in odontogenic cases, especially in conditions such as pulpitis (25.5%) and dental abscesses without systemic involvement (68%)^(2,3). Amoxicillin was identified as the most frequently prescribed antibiotic, followed by the amoxicillin/clavulanic acid combination, while clindamycin was the preferred antibiotic in patients allergic to penicillin^(2,3). **Conclusions:** This review highlights a worrying practice of excessive and inappropriate prescription of systemic antibiotics in dentistry, particularly in cases where local treatment would be sufficient⁽¹⁾. The results underline the imperative need for rigorous implementation of existing international guidelines, as well as reinforcement of ongoing training for professionals in the field. These measures are key to ensuring the rational use of antibiotics, preventing the rise of bacterial resistance and ensuring better clinical outcomes for patients.

Keywords: Dental infection; Antimicrobial therapy; Bacterial resistance to antibiotics

Acknowledgments/Funding

This research received no external funding.

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