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Are systemic antibiotics indicated in children presenting with an odontogenic abscess in the primary dentition? A systematic review of the literature

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Abstract

Objectives: This systematic review aimed to assess (1) whether systemic antibiotics are beneficial or harmful in healthy children who present with an odontogenic abscess in the primary dentition with or without systemic involvement and (2) if antibiotics are beneficial, which type, dosage and duration are the most effective. **Materials and methods:** Electronic databases (Medline, Embase, and the Cochrane Library) were screened from 1948 up to August 2020. No filters with respect to study design were applied. Outcomes of interest included pain, swelling, pain relief, adverse effects, signs of infection, quality-of-life measurements and medication required for pain relief. **Results:** Altogether, 352 titles and abstracts were screened for eligibility; of these, 19 were selected for full text assessment. All were excluded because none of them fulfilled the inclusion criteria and addressed the (adjunctive) use of antibiotics in children who present with an odontogenic abscess in the primary dentition. **Conclusions:** At present, there is no single randomised or non-randomised clinical study evaluating the effectiveness and harms of systemic antibiotics administered in children who present with an odontogenic abscess in the primary dentition. **Clinical relevance:** There is no clinical evidence to support nor to refute the use of antibiotics in children who present with an odontogenic abscess in the primary dentition without signs of local spread or systemic involvement. Given this lack of scientific evidence, the use of antibiotics cannot be recommended in these children. Well-designed clinical trials are indicated to fully understand the impact and necessity of antibiotics in these situations. © 2021, The Author(s), under exclusive licence to Springer-Verlag GmbH Germany, part of Springer Nature.

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