

## Letters From Our Readers

To: Editor, *The Angle Orthodontist*.

**Re: Response to: Influence of reminder therapy for controlling bacterial plaque in patients undergoing orthodontic treatment: a systematic review and meta-analysis.** Lima IFP, de Andrade Vieira W, de Macedo Bernadinho I, Costa PA, Lima APB, Pithon, MM, Paranhos LR. *The Angle Orthodontist*. 2018, 88(4): 483-493.

This systematic review (SR) evaluated the influence of reminder therapy on the plaque index (PI), gingival index (GI) and the occurrence of white spots in orthodontic patients. The conclusion claimed to be based on *high-quality evidence* that reminder therapy may contribute to improvements in these outcomes. The SR was mainly well done, but there are concerns regarding the use of the Grading of Recommendations Assessment, Development and Evaluation (GRADE), which should evaluate outcomes, not individual studies.<sup>1</sup> For the risk of bias (RoB), the authors report that blinding was considered not applicable because it is impossible to blind the individual who administered the treatment. As the participants were not blinded, there may be performance bias. If the outcome can potentially be influenced by knowledge regarding randomization, there is a serious problem with RoB.<sup>2</sup> Moreover, there are different types of reminders (messages, phone calls and others). Thus, the evidence for all reminders is limited, which is a problem of indirectness.<sup>3</sup> Finally, the forest plots for PI and GI clearly show problems of inconsistency: the effect estimates are not similar, confidence intervals do not overlap and there is high heterogeneity, with significant p-values.<sup>4</sup> The certainty of evidence should be rated

down due to RoB, indirectness and inconsistency for white spots as well as RoB and indirectness for PI and GI. The conclusion should be that the effectiveness of reminders at reducing the PI, GI and white spots in orthodontic patients has a *low to very low certainty* of evidence.

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## REFERENCES

1. Zhang Y, Akl AE, Schünemann HJ. Using systematic reviews in guideline development: The GRADE approach. *Res Syn Meth*; 2018:1–18.
2. Guyatt GH, Oxman AD, Vist G, Kunz R, Brozek J, Alonso-Coelho P, Montori V, Akl EA, Djulbegovic B, Falck-Ytter Y, Norris SL, Williams Jr JW, Atkins D, Meerpohl J, Schünemann HJ. GRADE guidelines: 4. Rating the quality of evidence—study limitations (risk of bias). *J Clinical Epidemiol*, 2011;64(4):407–415.
3. Guyatt GH, Oxman AD, Kunz R, Woodcock J, Brozek J, Helfand M, Alonso-Coelho P, Falck-Ytter Y, Jaeschke R, Vist G, Akl EA, Post PN, Norris S, Meerpohl J, Shukla VK, Nasser M, Schünemann HJ, Grade Working Group. GRADE guidelines: 8. Rating the quality of evidence—indirectness. *J Clin Epidemiol*, 2011;64(12):1303–1310.
4. Guyatt GH, Oxman AD, Kunz R, Woodcock J, Brozek J, Helfand M, Alonso-Coelho P, Glasziou P, Jaeschke R, Akl EA, Norris S, Vist G, Dahm P, Shukla VK, Higgins J, Falck-Ytter Y, Schünemann HJ, Grade Working Group. GRADE guidelines: 7. Rating the quality of evidence inconsistency. *J Clin Epidemiol*, 2011;64(12):1294–1302.