Reply to Letter: Comment on the Paper: How to Intervene in the Caries Process: Early Childhood Caries – A Systematic Review

Julian Schmoeckel^a Kristina Gorseta^b Christian H. Splieth^a Hrvoje Juric^b

^aDepartment of Preventive and Pediatric Dentistry, University of Greifswald, Greifswald, Germany; ^bDepartment of Pediatric and Preventive Dentistry, School of Dental Medicine, University of Zagreb, Zagreb, Croatia

Dear Editor,

We highly appreciate that a team of researchers intensively read our article and was willing to invest time and efforts to comment on the publication. Furthermore, we would have been happy to have these comments in the reviewing process as these are very valuable remarks.

Regarding the PRISMA flow diagram unfortunately a miscalculation/typing error was not eradicated in the review process. Please find attached the corrected Figure 1.

With respect to retrieving articles from other sources, it is clear that (systematic) reviews automatically will encounter references from prior reviews. This actually proves the quality of the search strategy, but with additional hand search it is now hard to reconstruct where cross-references came from, as we screened reference lists of the articles and partly also got suggestions from experts of further supposedly eligible papers which we screened as well.

It is correct that there are many tools for assessment of the primary literature for a systematic review, e.g., the PRISMA checklist or the Newcastle-Ottawa Scale (NOS) which we used. Other tools like AMSTAR 2 are available as well, but retrospective rating of primary references will always include a subjective evaluation process given the nature of heterogenic reporting.

Regarding the assessment in the Non-Operative Caries Management group containing randomized controlled trials (RCTs) and cohort studies, a comparable analysis for the risk of bias and quality assessment was complicated due to the extremely heterogenic character of the underlying research publications.

Alike the Cochrane foundation, we faced the problem that the available publications were not designed primarily to make systematic reviews feasible. Thus, systematic reviews often state that no high level evidence-based conclusions can be drawn, which does not really suffice if you have to come to decisions in clinics.

Thus, the design of the manuscript was given as this paper was part of a requested review consortium for a consensus paper of the European Organisation for Caries Research and the European Federation of Conservative Dentistry regarding caries management with a short deadline. The aim was to offer the most recent state of the literature in that field to provide the expert panel with beneficial clinically relevant scientific background. The search strategy was systematic, but due to the nature of the underlying literature, studies other than RCTs were included. It is correct that the paper ended up as being neither an RCT-based systematic review like Cochrane reviews nor an overview of reviews, but also not a narra-

Fig. 1. Flow-chart of the systematic review on the management of ECC.

tive review. As you describe, the deviations from a “pure” systematic review for RCTs only can be traced in the manuscript. After screening and reading the retrieved papers, we found different levels of evidence regarding different caries (ECC) management methods (e.g., several systematic reviews regarding NOCM with silver fluoride). Therefore, we divided the topics into three different sub-aspects (NOCM with SDF; NOCM other than SDF; Restorative) and adapted the evaluation and presented the data as most convenient and as clear as possible. More so, we also included studies with non-randomized design and worked our way through systematically. We under-

stand that a different research team might have taken a different choice at this point. Still, we think we could tackle the frequent problem of pure systematic reviews often stating that there is not enough evidence/not enough studies to meet inclusion criteria, and the final outcome or conclusion in these cases is that “more studies with that specific question are needed.” Thus, we could lay the best available ground for the expert consensus by ORCA and EFCD.

I hope our answers are helpful and clarify the concerns. We feel grateful for the response as we are always willing to improve further scientific work.