Author's response to reviews

Title: Clinical evaluation of a modified silver fluoride application technique designed to facilitate lesion assessment in outreach programs.

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Point-by-point response to Referees concerns:

From Referee 1

Background section:
• Information and justification for the use of 40% silver fluoride and stannous fluoride has been added, complete with references, to Paragraph 1.
• A brief statement of what is being reported in the article has been added at the end of this section.

Method section:
• The adequacy of the sample size was determined using the technique of providing a target for the power of the Datta and Satten Test to be applied once the sample was collected. This parameter is added in the last paragraph of this section.

Results section:
• As requested the authors have re-checked and analysed the results in Table 2. In this table the median change in lesion depth over 6 months by caries initiation site has been collapsed to provide data for occlusal and approximal surfaces in primary molars. The data no longer reflect those for sites on first primary molars and second primary molars separately.
• The adequacy of the sample size from the probability values has been added at the end of Paragraph 3.

Discussion:
• As requested, further discussion of the mechanism of caries arrest with silver diammine fluoride has been added. This appears in Paragraph 1.
• The limitations of the study as requested have been added in the second last paragraph of this section.

From Referee 2

Point 1: Absence of a control group.
• No control group is required in a study of this nature as we were looking at a relationship not a treatment effect. If one was looking at a treatment effect then a whole different approach would have been used and, yes, a control group would have been necessary. However, this was not the case, no attempt whatsoever was made to assess the efficacy of silver fluoride/stannous fluoride in arresting carious lesions. This is pointed out in the first sentence of the Discussion section.

Point 2: 6-months is too short to get a meaningful result.

• This may be the case in populations with low caries experience but certainly not in populations with high caries experience. At baseline the study group had an extremely high decay rate with the mean number of decayed, missing and filled primary tooth surfaces (dmfs) being 12.6 (first paragraph in Results section). Furthermore, the probability values in the results confirm that meaningful observations were obtained in the 6 months time frame.

Point 3: No additional information to that already available in the literature.

• This is definitely not the case. Although there have numerous studies where silver fluoride has been used, this is the first time a quantitative study evaluating a modification of the application technique has been reported. As Referee I has commented “the article is of importance in its field”.

Point 4: The level of interest is low.

• This possibly depends on one’s geographic location. It is aimed at workers in developing countries with high backlogs of treatment needs and limited resources. Again to use the words of Referee 1 “the article is of importance in its field”.