



Response to ‘Comment on: Cochrane corner: Atropine: an ancient remedy for a twenty-first century problem’

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Received: 30 July 2020 / Revised: 3 August 2020 / Accepted: 21 August 2020 / Published online: 2 September 2020
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To the Editor:

We thank Bullimore and Brennan for their interest in our Cochrane Corner article and for their thought-provoking comments. It is possible that your correspondents may be unfamiliar with the purpose of the Cochrane Corner series in *Eye*, which consists of invited clinical commentaries on the findings and implications of recently published Cochrane Systematic reviews [1]. The current commentary concerns an updated 2020 review ‘Interventions to slow progression of myopia in children’ by Walline et al. [2]. Bullimore and Brennan have taken issue with some sections of the commentary, which they appear erroneously to attribute to the views of its authors. More careful reading of the article would have made it clear that we were reporting verbatim the findings of the Cochrane review. With respect to atropine eye drops Walline et al included data from trials, which compared atropine to placebo or other intervention and reported change in refractive error and axial length at 12 months. Not all studies provided data for inclusion in the meta-analyses. A meta-analysis of trials comparing atropine to placebo generated a pooled mean difference in spherical equivalent (SE) refractive error of 1D (95% confidence interval (CI) 0.93–1.07). Although the review was published in 2020, it did not include more recently published studies on atropine for myopia control [3, 4]. We discussed these trials in the commentary and further alluded to a number of ongoing studies. We agree that the optimal dose of atropine for use in children is yet to be

determined and it is also unclear whether efficacy could be improved if anti-muscarinic therapy is combined with other interventions.

The conclusions of Walline et al that optical interventions for myopia control confer only a small benefit was based on the studies identified by their bibliographic searches up to February 2018 and obviously not studies published after this date. It is possible that the conclusions of the authors would change as new evidence emerges. The authors of the Cochrane review should be congratulated for their evidence synthesis in a rapidly moving field. The review included 41 studies (6772 participants) of various interventions for myopia control, 21 of which contributed data to at least one meta-analysis. Given the clinical importance of this topic, Cochrane Eyes and Vision have recently registered a new review title ‘Interventions for myopia control in children: a network meta-analysis’. A network meta-analysis offers an advantage over a pairwise meta-analysis in that it provides both direct comparisons of individual trials and indirect comparisons that were not directly evaluated in trials across a network of studies. A network meta-analysis can also provide relative rankings of interventions to inform clinical decision-making.

We agree with Bullimore and Brennan that myopia-associated ocular pathology can occur irrespective of the degree of myopia, however our point was to indicate that the prevalence of sight-threatening pathology increases with higher degree of myopia. Given that many of the visually debilitating pathological complications of myopia are associated with axial elongation, measuring and reporting axial length should be considered important in future studies.

Cochrane welcomes feedback on all of their reviews and should your correspondents wish to comment on this specific review they can do so using the link <https://www.cochranelibrary.com/cdsr/comments-submission>.

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Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

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