Reviewer’s report

Title: Prevalence of infectious keratitis in Central China

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Reviewer: Ioannis N. Petropoulos

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China is an emerging economy and the world’s most populated country. Due to its rapid urbanisation and increasing prevalence of chronic disease it also faces major challenges for its healthcare system. However, due to environmental pollution (land, water and air) and limited access to or lack of healthcare services, particular populations are also at risk for infectious disease. The study by Cao and colleagues is important: first, it addresses a problem common in developing or less developed countries that of blindness caused by infectious disease and second, it provides valuable data to assist strategy design. The authors provide an excellent summary of current issues in the introduction, adequate details in Methods including sampling approach, statistical techniques and WHO disease definitions, focused results and finally a good discussion of main findings and possible explanations. Tables and figures are kept to minimum. In my opinion, this article is well-organised and easy for the reader to follow. However, I do have some comments related to the contents:

1) Introduction, page 3, lines 1-2, “Infectious keratitis...disability”. Not all references used are relevant and should also be less. The authors should consider including the paper by Bourne et al. Causes of vision loss worldwide, 1990-2010: a systematic analysis. Lancet Global Health 2013;1:e339-49.

2) Introduction, page 4, lines 1-2, “China is estimates...globally”. In my opinion, the authors should provide a reference and a short explanation for their statement. There are specific reasons, besides infectious keratitis, on why China is expected to have largest number of people worldwide. Reasons such as economic growth, healthcare reform, improved safety standards, access to education, dietary changes will all likely result in an older/aging population and hence higher prevalence of diabetes, obesity, cataract, degenerative disorders (e.g. glaucoma, AMD). Of course it is important to know in what percentage infectious keratitis contributes to overall ophthalmic disease.

3) Methods, statistical analysis, page 8, line 7 “P < 0.05 indicated...”. Please explain whether you have adjusted the P value for the number of comparisons.

4) Did the authors apply any exclusion criteria? Measuring visual impairment (logMAR acuity as mentioned in the Methods) is a challenging task especially in rural or less educated populations.

5) A very good explanation is provided in the discussion about the high prevalence of pterygium lesions in those with corneal disease. Similarly, the comparison of study and WHO distributions regarding visual impairment is also
relevant.

6) Punctuation and grammar mistakes are common across the text. Please correct.