Author's response to reviews

Title: Waterborne microbial risk assessment: a population-based dose-response function for Giardia spp (E.M.I.R.A study)

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Dear Editor,

We submit for publication a paper on drinking water microbiological risk assessment showing that the dose-response functions that were derived after clinical challenges with Giardia cysts fit reasonably well with risk estimates based on an epidemiological study we conducted. This epidemiological study (EMIRA project) has already given place to publications, each one bearing on a specific aspect of the study (risks related to viral indicators; risks related to Giardia protozoans and their poor association with bacterial quality indicators; water consumption patterns). The present paper, although based on the same data, presents a distinct aspect not covered in previous papers. It aims to evaluate how confident we can be in using the quantitative risk assessment tools derived from very special population and environmental conditions, ie healthy (young) subjects and cultivated germs. Therefore, but for the necessary presentation of the epi study design and data, this paper does not overlap with others.

The parasitical quality of drinking water is still an important public health issue in developed countries (and even more so in less developed countries), Giardia being a serious source of waterborne infection, and these risk assessment tools represent important means to manage the risk and design water treatment plants.

For these reasons, we chose a public health journal for this work.