Reviewer's report

Title: Effects of Green Tea Catechins and Theanine on Preventing Influenza Infection among Healthcare Workers: A Randomized Controlled Trial

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Reviewer: Rainer Ludtke

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Statistical review BMC Complementary and Alternative Medicine
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- Sample size calculation seems to be ok, although my program gives some slightly different numbers. This, however, might be due to different approximations. No revisions to be made.

- The analysis was done on a intention-to-treat basis, so the risk of bias is small. No revisions to be made.

- I was not able to find a time span how long each patient was observed. The use of a dichotomous outcome (influenza yes-no) is only appropriate, if each person was observed for the same time. This is because patients with longer observation times have a higher probability to get an influenza. So, if observation times differ, the basic statistical assumption, that each observation (in each group) comes from the same distribution, is violated. The authors should comment on this.

- The use of logistic regression is appropriate for a dichotomous outcome parameter. Maybe the authors should state how they dealt with patients, who had more than one influenza infection during observation time (I assume these were counted as “YES – there was an infection”).

- The use of Cox proportional hazards model to analyse time-to-event data is appropriate. Maybe the authors could provide some additional information in which cases they took the influenza-free time to be censored.

- I appreciate that the authors calculated adjusted Odds-Ratios, or adjusted Hazard Ratios, respectively. Two minor points however were not clear for me. First, did different variables enter the two models (logistic regression, Cox regression), or were potential confounders only defined on one model and transferred to the other. Second, which variables exactly entered the model (because of a P<0.2 in univariate analyses). The authors should include one or two respective sentences.