Reviewer’s report

Title: Comparison of serious inhaler technique errors made by device-naive patients using three different dry powder inhalers: a randomised, crossover, open-label study

Version: 3 Date: 16 September 2015

Reviewer: Job van de van der Palen

Reviewer’s report:

the authors have responded adequately to most comments made.

However, I still have a major issue with how the authors report their primary and secondary outcomes. The authors state that following trial registration they decided to change the term “critical” to “serious”. In itself this is acceptable. Nevertheless, when looking at the primary and secondary outcomes on ClinicalTrials.gov, it is clear that the primary outcome was what the authors now describe as “definitely serious errors”. Under secondary outcomes they include e.g. “All inhaler technique errors”. Therefore, I feel that they authors primarily should report the definitely serious errors, and report on serious errors under the sensitivity analyses. So, I am not asking the authors to “change the primary endpoint”, as they state, but to report the registered primary endpoint as the primary outcome. I feel this is one of the reasons why we have started registering clinical trials, so it is clear to everyone what is the most important outcome, and what is secondary.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

Job van der Palen has received over the past 5 years (i) fees and reimbursement for organizing education, and participation in advisory boards or consulting from Almirall, Boehringer Ingelheim, GlaxoSmithKline, Mundipharma, and Teva; (ii) research grants from ThermoFisher, Phillips, Boehringer Ingelheim, GlaxoSmithKline, and Chiesi.