Reviewer’s report

Title: Statin use and association with colorectal cancer survival and risk: case control study with prescription data linkage

Version: 2 Date: 11 June 2012

Reviewer: Yana Vinogradova

Reviewer's report:

The paper has definitely been improved by the author’s changes, but in my reading there is still one confusing statement. Line 15, page 12 states that “the association was no longer significant for any of the statin variables”, while according to Table 4 the association for >=1 dispensed prescription at least 2 months pre-recruitment is significant after adjustment for the confounding factors (and noted as such in the table). This should be clarified or corrected.

The other issue relates to the validity of the results. The proportion of observations with missing values appears to be quite large (almost a quarter) so it is not clear whether the effect becomes not significant because of the adjustment for confounders or from a possibly non-random dropping of certain observations or simply from losing the power. It might be best to use only important confounders (significant associated with the outcome and with the exposure) and to remove unimportant (for this sample) confounders from the model so keeping as many observations for the analysis as possible. Another possibility could be to run a sensitivity analysis on the full sample either imputing missing data or coding missing values as separate category. In any case, Table 4 should display unadjusted and adjusted odds ratios obtained from the same sample.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

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

Declaration of competing interests:

I declare that I have no competing interests.