Reviewer’s report

Title: Alcohol consumption and risk of incident ovarian carcinoma: a pooled analysis of 5,342 cases and 10,358 controls from the Ovarian Cancer Association Consortium

Version: 1 Date: 29 August 2012

Reviewer: Shelley Tworoger

Reviewer’s report:

This is a well written paper based on an excellent analysis and data set regarding alcohol intake and risk of epithelial ovarian cancer. Three comments that need to be addressed are below.

1. Essentially the analysis is null, which is what the authors conclude. That said, this study essentially only considers alcohol intake relatively shortly before diagnosis (1-5 years depending on study). Given that ovarian cancer has a long latency period, it is possible that alcohol intake at other points in the life cycle may influence risk, even if intake near diagnosis does not influence risk. Perhaps some studies in this paper have information about alcohol intake at other times in life, which could be examined. Also, it would be nice to see if there is heterogeneity by studies that evaluate alcohol at different times before diagnosis. At a minimum, this should be mentioned in the discussion as a possibility.

2. It is possible that inverse associations observed in this study, could be due to changes in alcohol intake among cases before diagnosis, as we know that many women with ovarian cancer feel unwell for some time before diagnosis. It would be nice to see if the inverse associations for endometrioid and clear cell tumors remain when restricting to studies that asked about intake 5 years before diagnosis.

3. For the statistical analysis looking at the heterogeneity by tumor type, it would make sense to look at the heterogeneity of the trend variable to reduce df.

One minor point is that it would be nice to include the main total alcohol OR and CIs in the results text.

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests.