Reviewer's report

**Title:** Under-treatment of elderly patients with ovarian cancer: A population-based study

**Version:** 1  **Date:** 24 June 2015

**Reviewer:** Sigita Liutkauskiene

**Reviewer's report:**

Major Compulsory Revisions

1. The questions posed by the authors in this article are not clearly defined and incorrect. Based on the results that are presented, one may assume that the authors posed the question about the influence of age on ovarian cancer treatment modality. This issue not important and key. The key issue according presented inconsistent and confusing data must be treatment modality’s influence on clinical outcomes of elderly patients. This question must be more analized in introduction, results and discussion sections.

2. The data presented in the abstract, results and discussion parts, tables, graph are inconsistent and confusing.

3. The data was obtained from the tumor registry in the Hérault department. Inclusion criteria must be clearly and exactly described. It would be helpful to know what methods were used to identify the patients that were treated with surgery, chemotherapy or surgery and chemotherapy. A consort diagram showing the flow of the cases used for analysis would be helpful in justifying the case selection.

4. While the authors attempt to state that elderly women with ovarian cancer were undertreated, it is not clear the influence of undertreatment of elderly patients on overall survival. First of all, presented Kaplan Meier curves (Figure 1) showing these results are misleading as the graphs do not include p-values from log-rank tests. Secondly, including comorbidities, age, performance status and other prognostic factors in univariate and multivariate analysis is needed to establish the reason of possible less overall survival of undertreated elderly patients. Consequently, the statement that „the elderly patients in whom guidelines-recommended treatment was not applied had poorer likelihood of survival as compared to elderly patients who received guidelines-recommended therapy, and as compared to younger women“ was not statistically proven.

5. The manuscript do not adhere to the relevant standarts for reporting and data deposition, presented data in the tables 2 and 3 do not represent the content of the article and the questions posted by authors.

**Level of interest:** An article of limited interest
Quality of written English: Needs some language corrections before being published

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

Declaration of competing interests:

I declare that I have no competing interests