Reviewer's report

Title: Which is the Best Postoperative Chemotherapy Regimen in Patients with Rectal Cancer after Neoadjuvant Therapy?: Analysis of Surveillance, Epidemiology, and End Results-Medicare Data

Version: 2 Date: 3 September 2014

Reviewer: Vicente Alonso

Reviewer's report:

- Major Compulsory Revisions

Patients with pCR were excluded from analysis (bias selection). No data of patients achieving pCR are presented; since those patients represent 10-20%, may suppose the same percentage of patients receiving Oxaliplatin.

While in adjuvant treatment of stage II colon cancer the analysis of less than 12 lymph nodes is an adverse prognostic factor, this has not been demonstrated in rectal cancer after preoperative treatment. In fact, retrieval of less than 12 nodes in the specimen of rectal cancer patients treated with neoadjuvant chemoradiation seems not to affect overall survival and has been described as a possible marker of higher tumor response.

- Minor Essential Revisions (such as missing labels on figures or the wrong use of a term which the author can be trusted to correct)

The number of patients treated with oxaliplatin-based chemotherapy is small which implies a bias in patient's selection.

Adjuvant treatment schedules are not described. Moreover, by their influence on survival would be desirable to present data from dose-intensity and compliance.

In this analysis more than 50% of patients do not receive adjuvant treatment, which does not reflect the usual clinical practice in western countries (where 60-70% of the patients receive adjuvant treatment).

The analysis of patients >65 years reflects a subgroup the patients, although the most numerous in rectal cancer, does not allow to extract conclusions for younger patients.

Some of the more important prognostic factors that influence in the decision of adjuvant treatment are not considered (such as tumoral regression grade).

Extended time of analysis, that could influence in the diagnosis methods (with or without MRI), surgery type (Total Mesorectal Excision) and different chemotherapy schedules.

- Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)
Background First paragraph – preoperative chemotherapy and preoperative radiotetherapy should be changed by chemoradiotherapy

Background First paragraph. - penetration more the muscularis propia (T3 T4), Penetration of the muscularis propia is T2.

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

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

No disclosure